



# Various State Agencies

THIS NUMBER MUST APPEAR  
ON ALL DOCUMENTS

**Bill To:**  
Various State Agencies  
Located throughout Idaho  
\*\*\*\*  
Various, ID 83701

Participating Addendum  
Contract Renewal

Participating Addendum  
PADD1004 - 02

## DELIVER TO:

Various State Agencies  
Located throughout Idaho  
\*\*\*\*  
Various, ID 83701

Date: Sat Dec 06, 2008  
F.O.B: Destination  
Terms:

## VENDOR:

VARIOUS CONTRACTORS  
Various Addresses  
Boise, ID 83706  
Attn: Contractor Source  
Vendor Nbr: P00000055654  
Emailed To: [999@999.com](mailto:999@999.com)  
Phone: 208 327-7465  
Fax: 208 327-7320  
Account Number: P00000055654

Start of Service Date Thu Oct 30, 2008

End of Service Date: Thu Oct 29, 2009

Solicitation#: [RFQ03882](#)  
DOC#: PREQ7417

## File(s) Attached:

- ☐ 02702c\_Contract.pdf
- ☐ 2008-2009 Renewal.pdf

Buyer: [GREGORY LINDSTROM](#) 208-332-1609

Item No	Description	Quantity UOM	Unit Price	EXTENSION
000	BLANKET PURCHASE AGREEMENT ( line item particulars follow )	1 lot		500000000.00
	Total:			500000000.00
Blanket Comments:	<p>WSCA PUBLIC SAFETY COMMUNICATION EQUIPMENT CONTRACT PADD1004 RENEWAL</p> <p>This contract renewal and the provisions hereof are hereby made part of that certain State of Idaho contract number PADD1004, for WSCA PUBLIC SAFETY COMMUNICATION EQUIPMENT dated FEBRUARY 02, 2004 for ALL ELIGIBLE POLITICAL SUBDIVISIONS OR PUBLIC AGENCIES, between VARIOUS CONTRACTORS as "Contractor" and the State of Idaho as "State." Contractor and State hereby agree as follows:</p> <p>All of the terms and conditions contained in the Contract shall remain in full force and effect, except as expressly modified herein. The effective date of this renewal is OCTOBER 30, 2008.</p> <p>This contract is renewed for ONE (1) YEAR commencing OCTOBER 30, 2008 and expiring OCTOBER 29, 2009. The same terms, conditions and prices prevail for the contract renewal period.</p> <p>The dollar amount listed in the contract renewal pricing is an estimate and cannot be guaranteed. The actual dollar amount of the contract may be more or less depending on the actual orders, requirements, or tasks given to the Contractor by the State or may be dependent upon the specific terms of the Contract.</p> <p>SIGNED AND DATED ACCEPTANCE LETTER FROM VARIOUS CONTRACTORS ON FILE AT THE DIVISION OF PURCHASING</p>			
Item No	Description	Quantity UOM	Unit Price	EXTENSION
001	WSCA Public Safety Communication Equipment (Contract 02702)  ( 915-79 ) ( nt )	1 LOT	500000000.00	500000000.00
	Instr: Electronic copies of the WSCA contract may be obtained, free of charge, by requesting a CD from the Idaho Division of Purchasing, Boise, Idaho (208) 327-7465			

General Comments:	.....NOTICE OF STATEWIDE CONTRACT (WSCA CONTRACT 02702) AWARD
	Contract for WSCA Public Safety Communication Equipment for various state of Idaho agencies, institutions, and departments. The Division of Purchasing or the requisitioning agency will issue individual releases (delivery or purchase orders) against this Master Contract on an as needed basis.
	Contract Title:.....WSCA Public Safety Communication Equipment Delivery Zone/Area:....Statewide Contract Usage Type:....Convenience Public Agency Clause: ..Yes
	Contract Administration - WSCA:..Keith Armstrong ---Phone Number:.....360-902-7420 ---Fax Number.....360-586-2426 ---E-Mail:.....karmstr@ga.wa.gov
	Contract Administration - Gregory Lindstrom, Purchasing Officer ---Phone Number.....208-332-1609 ---Fax Number.....208-327-7320 ---E-Mail.....Gregory.Lindstrom@adm.idaho.gov
	Contractor's Primary Contact: ---MULTIPLE CONTRACTORS. SEE CONTRACT SUMMARY FOR CONTACT INFORMATION.
	CONTRACTOR: Ship to the FOB DESTINATION point and BILL DIRECTLY to the ORDERING AGENCY. DO NOT MAIL INVOICES TO THE DIVISION OF PURCHASING. Notating the Contract Award Number on any invoices/statement will facilitate the efficient processing of payment.
	Minimum Order Quantity: None.. Minimum Dollar Amount: None.. Standard Delivery Time: Varies..
	Order Placement Address: VARIOUS PLACEMENT ADDRESSES. SEE CONTRACT SUMMARY FOR CONTACT INFORMATION.
	Payment Address: VARIOUS PAYMENT ADDRESSES. SEE CONTRACT SUMMARY FOR CONTACT INFORMATION.
INVOICES MUST BE SENT TO THE IDAHO ORDERING AGENCY.	

Instructions:	
Freight / Handling Included in Price	
	By: GREGORY D. LINDSTROM

# Western States Contracting Alliance

## Current Contract Information



PHASE I - SOLE SOURCE/INSTALLED BASE AWARD Phase I Awards  
PHASE II - COMPETITIVELY BID EQUIPMENT

Effective Date: October 30, 2008

Contract number:	02702	Commodity code:	5820
	(replaces 03599, 08497, 02899)		
Contract title:	WSCA Public Safety Communication Equipment		
Purpose:	Contract Extension for 12 months with all vendors		
Original award date:	October 30, 2003		
Current extension period:	October 30, 2008 through: October 29, 2009		
Contract term:	Not to exceed <u>10</u> years		
Contract type:	This contract is designated as <b>convenience</b> use.		
Scope of contract	This contract is awarded to <b>multiple</b> contractor(s).		

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Notice to Washington State Agencies subject to the policies of the Washington State Information Services Board under Chapter 43.105 RCW, your purchase may require prior approval from the Department of Information Services (DIS) and the Information Services Board (ISB).

Primary user agency(ies): [Western States Contracting Alliance State and local agencies.](#)

For use by: **General use:** All State Agencies, Political Subdivisions of: Alaska, Arizona, Arkansas, California, Colorado, Florida, Hawaii, Idaho, Iowa, Kansas, Mississippi, Montana, New Jersey Transit Corp., New Hampshire, Nevada, Oregon, Oklahoma, Rhode Island, South Dakota, Utah and Washington, Wisconsin, Wyoming and Qualified Non-profit Corporations, Materials Management Center, Participating Institutions of Higher Education (College and Universities, Community and Technical Colleges). **Various use:** [All governmental agencies](#)

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Term worth: \$500,000,000

Washington State Department of General Administration  
Office of State Procurement, PO Box 41017, Olympia, WA 98504-1017  
To request this information in alternative formats call (360) 902-7400, or TDD (360) 664-3799.

Current participation:	\$0.00 MBE MBE 0%	\$0.00 WBE WBE 0%	\$500,000,000.00 OTHER 0%	\$0.00 EXEMPT EXEMPT 0%
Current Participation:	Contract vendors are providing sub-contractors who are qualified WBE's.			
Recovered material:	Contact contractor's for returning recoverable materials at the end of the equipment life cycle.			

This page contains key contract features. Find detailed information on succeeding pages. For more information on this contract, or if you have any questions, please contact your local agency Purchasing Office, or you may contact our office at the numbers listed below.

Contract Consultant:	Keith Armstrong	Office Assistant:	Christine Schoepfer
Phone Number:	(360) 902-7420	Phone Number:	(360) 902-7192
Fax Number:	(360) 586-2426	Fax Number:	(360) 586-2426
Email:	<a href="mailto:karmstr@ga.wa.gov">karmstr@ga.wa.gov</a>	Email:	<a href="mailto:schoep@ga.wa.gov">schoep@ga.wa.gov</a>

Unit Manager	Kenneth A. Woodfork	Purchasing Agent	Christine Warnock
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Visit our Internet site: <http://www.ga.wa.gov/purchase>

## WESTERN STATES CONTRACTING ALLIANCE CONTRACT: 02702 PUBLIC SAFETY COMMUNICATIONS EQUIPMENT AND SERVICE CONTRACT.

### SCOPE OF THE CONTRACT

The purpose of this convenience, multi-state, contract is for the purchase of Public Safety Communication Equipment, and programs, as they are needed. The WSCA directors may authorize state and local governmental entities throughout the nation (NASPO) the use of this contract subject to approval of the local state purchasing director and local statutory provisions. The selected contractors shall accept purchase orders from and deliver products to approved purchasing entities. Contractors are required to offer warranty and maintenance services on products purchased under these agreements. Only Manufacturers submit proposals for products and/or services that they themselves produce in Phase I and/or Phase II. Phase I and Phase II are as follows:

Phase I is a sole source and/or installed base contract.

Phase II is competitively bid contract.

“WSCA” Means the Western States Contracting Alliance, a cooperative group contracting consortium for state government departments, institutions, agencies and political subdivisions (i.e., colleges, school districts, counties, cities, etc.) for the states of Alaska, Arizona, California, Colorado, Hawaii, Idaho, Minnesota, Montana, Nevada, New Mexico, Oregon, South Dakota, Utah, Washington, and Wyoming.

### NONPROFIT CORPORATIONS

An organization meeting all of the following qualifications:  
Registration with the Secretary of State in the State of Washington as a Nonprofit Corporation;  
Has Federal Tax Status as a 501(C) 3 Nonprofit Corporation;

Is receiving a portion of its funding directly from public agencies, either Federal, State of Washington, or Political Subdivisions of the State of Washington.

**POLITICAL SUBDIVISION**

Any unit of local government within the states of Washington and/or Oregon that receives state funds; e.g. cities, counties, school districts, special purpose districts, local service districts, is a member of the states' purchasing co-op, and is authorized to purchase from state contracts by inter local agreements. For the state of Oregon, the term "political subdivision" includes nonprofit corporations and Institutions of higher education (e.g. Colleges and Universities, Community and Technical Colleges)

**WSCA Background Information:** WSCA was formed in October 1993. The purpose of WSCA is to establish the means by which participating states may join together in cooperative multi-state contracting, to ensure the commitment of each participating state and to provide regular and ongoing assistance to participating states in researching, developing, and administering procurement and contractual specifications and requirements. WSCA maintains a cooperative relationship with the National Association of State Purchasing Officials (NASPO). The mission of WSCA is to implement multi-state contracts to achieve cost-effective and efficient acquisition of quality products and services and to promote interoperability and sharing amongst the WSCA participants.

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Products/Services available:	<b>Public Safety Communication Equipment</b>
Related product contracts:	<b>Radio, Gateway devices, Towers, Microwave, Waveguides, Antennas, Power Supplies</b>

**NOTES:**

I. State Agencies: Submit Order directly to Contractor for processing. Political Subdivisions: Submit orders directly to Contractor referencing State of Washington contract number #02702. If you are unsure of your status in the State Purchasing Cooperative call (360) 902-7415.

Only authorized purchasers included in the Western States Contracting Alliance (WSCA) there local governments, poly-sub, and non-profits may use the contract.

Contract Terms: This Document includes by reference all terms and conditions published in the original **RFP and Specification Documents**.

II. The July 1, 2006 edition of the CCI includes a revision to the Motorola contract segment. Effective with publication, the basis for pricing calculations will be the current Motorola list price. The new pricing replaces the old Motorola list price that has been submitted with the original bid. Making this change was not a defacto price increase. A line-by-line review of the two lists indicated that there were no cases of like-for-like price increases. The effect of the change was found to be minimal but would have the benefit of making pricing on new items available. At the same time, Motorola advanced the effective date of its final volume discount. Motorola was scheduled to move from a 2% to a 3% volume discount within a year. The July change makes the additional discount available now. Further, Motorola will reduce its payments to WSCA headquarters from 1.5% to ½ of 1% for all sales outside of WA. Motorola will retain the 1.5% administrative rate for WA sales. Also with CCI revision was some administrative changes of taking out contract language that no longer applies and was struck through with computer lines. That old language and old outdated products and inapplicable terms were deleted.

III. The State of Minnesota has withdrawn from this WSCA contract according to published documents and confirmed reports with Minnesota procurement.

**SPECIAL CONDITIONS:**

Refer to the original RFP, Amendments and Specifications for all terms, conditions and equipment specifications.

Online reporting report to publish quarterly sales see links below:



WSCA Sales  
Report.doc

or <https://fortress.wa.gov/ga/apps/CSR/login.aspx>

Have your contract administrator use their e-mail address and login password to access the online reporting. If you do not have an email address/password, or if you are having system trouble, please contact Customer Service at (360) 902-7400 or [PCAMail@ga.wa.gov](mailto:PCAMail@ga.wa.gov).

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**Phase II**

## Phase I Awards

PHASE 1, WAS NOT COMPETITIVELY BID AND CONTRACTS WERE BASED ON SOLE SOURCE, SPECIAL MARKET CONDITIONS:

All purchase entities must check with there laws governing sole source, special market conditions before using the Phase 1 contract. Phase 1 contract was based on special market conditions, an installed base and only vendor able to provide the replacement equipment.

Equipment Category	Status of Award	Date of Award
Category 1, Radios	Awarded	November 25, 2003
Category 1a, 900 MHz Radios	Awarded	August 3, 2007
Category 2, Aviation Radios	Awarded	November 25, 2003
Category 3, Dual Receiver Radio	Re-bid 2004	First Qtr 2004
Category 4, Gateway Devices:	Awarded	November 25, 2003
Category 5, Microwave	Awarded	November 25, 2003
Category 6, Towers	Awarded	November 25, 2003
Category 7 Microwave Antennas, Waveguide & Associated Hardware	Awarded	November 25, 2003
Category 8, Test Equipment	Awarded	November 25, 2003

**PHASE I**

Contractors	Aeroflex	Page 13
:	Alcatel	Page 24
	Ceragon Networks	Page 47
	Daniels Electronics	Page 50
	EF Johnson Company	Page 57
	Eltek Valere	Page 118
	General Dynamics	Page 123
	Harris Stratex Networks Operating Corporation	Page 120
	Icom America, Inc.	Page 138
	Raytheon	Page 140
	Kenwood	Page 146
	M/A COM	Page 156
	Motorola	Page 166
	Radian Communication Services, Inc	Page 187
	Radio Frequency System	Page 193
	RELM Wireless Corporation (King)	Page 214
	Sinclair Technologies	Page 215
	SmartLink Radio Networks	Page 219
	Tait North America, Inc.	Page 223
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Washington State Department of General Administration

Office of State Procurement, PO Box 41017, Olympia, WA 98504-1017

To request this information in alternative formats call (360) 902-7400, or TDD (360) 664-3799.

## Phase II Awards

PHASE 2, WAS COMPETITIVELY BID AND ALL PROCUREMENT PRACTICES WERE FOLLOWED.

## PHASE 2 AWARDS:

Equipment Category	Status of Award	Date of Award or Proposed date of Award
Category 1, Radios	Awarded	October 30, 2003
Category 2, Aviation Radios	Awarded	October 30, 2003
Category 3, Dual Receiver Radio	Re-bid	1 <sup>st</sup> QTR 2004
Category 4, Gateway Devices:	Awarded	October 30, 2003
Category 5, Microwave	Awarded	October 30, 2003
Category 6 Towers	Awarded	October 30, 2003
CATEGORY 7 Waveguides and Antennas	Awarded	October 30, 2003
Category 8, Test Equipment	Awarded	October 30, 2003

## PHASE II

Contractors:	Aeroflex	Page 13
	Alcatel	Page 24
	Communications-Applied Technology	Page 39
	EF Johnson Company	Page 57
	Eltek	Page 144
	General Dynamics	Page 148
	Harris Stratex Networks Operating Corporation	Page 153
	Icom America, Inc.	Page 138
	Raytheon	Page 140
	Kenwood	Page 146
	M/A COM	Page 156
	Northern Airborne Technology Ltd	Page 182
	Radian Communication Services, Inc	Page 187
	Radio Frequency System	Page 193
	SmartLink Radio Networks	Page 219
	Valmont	Page 225

## Category 1, Radios

Link to Specifications: <http://www.ga.wa.gov/pca/bids/02702-Phase2-Category1.zip>

NA - Not awarded and will be added after these items are re-bid.

Equipment	Link to Contractor
Portable Analog	
High VHF 136-174 Quality Category A	EF Johnson Company
High VHF 136-174 Quality Category B	EF Johnson Company
<b>Error! Reference source not found.</b>	M/A COM
High VHF 136-174 Quality Category D	Kenwood
Portable Analog	
UHF 450-470 Quality Category A	EF Johnson Company
UHF 450-470 Quality Category B	EF Johnson Company
UHF 450-470 Quality Category C	Kenwood
UHF 450-470 Quality Category D	EF
Portable Analog	
UHF 806-870 Quality Category A	EF Johnson Company
UHF 806-870 Quality Category B	EF Johnson Company
UHF 806-870 Quality Category D	EF Johnson Company
UHF 806-870 Quality Category D	EF Johnson Company
Desktop Analog	
High VHF 136-174 Quality Category A	NA
High VHF 136-174 Quality Category B	NA
High VHF 136-174 Quality Category C	NA
High VHF 136-174 Quality Category D	NA
Desktop Analog	
UHF 450-470 Quality Category A	NA
UHF 450-470 Quality Category B	NA
UHF 450-470 Quality Category C	NA
UHF 450-470 Quality Category D	NA
Desktop Analog	
UHF 806-870 Quality Category A	NA
UHF 806-870 Quality Category B	NA
UHF 806-870 Quality Category C	EF Johnson Company
UHF 806-870 Quality Category D	EF Johnson Company
Mobile Analog	
High VHF 136-174 Quality Category A	NA
High VHF 136-174 Quality Category B	EF Johnson Company
High VHF 136-174 Quality Category C	EF Johnson Company
High VHF 136-174 Quality Category D	EF Johnson Company
Mobile Analog UHF 450-470	
UHF 450-470 Quality Category A	NA
UHF 450-470 Quality Category B	NA

Equipment	Link to Contractor
<b>Error! Reference source not found.</b>	M/A COM
UHF 450-470 Quality Category D	NA
Mobile Analog	
<b>Error! Reference source not found.</b>	M/A COM
UHF 806-870 Quality Category B	NA
UHF 806-870 Quality Category C	EF Johnson Company
UHF 806-870 Quality Category D	EF Johnson Company
Remote Base/Repeater Station Analog	
High VHF 136-174 Quality Category A	NA
High VHF 136-174 Quality Category B	NA
High VHF 136-174 Quality Category C	NA
<b>Error! Reference source not found.</b>	M/A COM
Remote Base/Repeater Station Analog	
UHF 450-470 Quality Category A	NA
UHF 450-470 Quality Category B	NA
UHF 450-470 Quality Category C	NA
<b>Error! Reference source not found.</b>	M/A COM
Remote Base/Repeater Station Analog	
UHF 806-870 Quality Category A	NA
UHF 806-870 Quality Category B	NA
UHF 806-870 Quality Category C	NA
UHF 806-870 Quality Category D	NA
Portable Digital	
High VHF 136-174 Quality Category A	EF Johnson Company
High VHF 136-174 Quality Category B	EF Johnson Company
High VHF 136-174 Quality Category C	EF Johnson Company
High VHF 136-174 Quality Category D	EF Johnson Company
Portable Digital	
UHF 450-470 Quality Category A	EF Johnson Company
UHF 450-470 Quality Category B	EF Johnson Company
UHF 450-470 Quality Category C	EF Johnson Company
UHF 450-470 Quality Category D	EF Johnson Company
Portable Digital	
UHF 806-870 Quality Category A	EF Johnson Company
UHF 806-870 Quality Category B	EF Johnson Company
UHF 806-870 Quality Category C	EF Johnson Company
UHF 806-870 Quality Category D	EF Johnson Company
Desktop Digital	
High VHF 136-174 Quality Category A	NA
High VHF 136-174 Quality Category B	NA
High VHF 136-174 Quality Category C	NA
High VHF 136-174 Quality Category D	EF Johnson Company
Desktop Digital	
UHF 450-470 Quality Category A	NA
UHF 450-470 Quality Category B	NA

Equipment	Link to Contractor
UHF 450-470 Quality Category C	NA
UHF 450-470 Quality Category D	NA
Desktop Digital	
UHF 806-870 Quality Category A	NA
UHF 806-870 Quality Category B	NA
UHF 806-870 Quality Category C	EF Johnson Company
UHF 806-870 Quality Category D	EF Johnson Company
Mobile Digital	
High VHF 136-174 Quality Category A	NA
<b>Error! Reference source not found.</b>	M/A COM
High VHF 136-174 Quality Category C	EF Johnson Company
High VHF 136-174 Quality Category D	EF Johnson Company
Mobile Digital	
UHF 450-470 Quality Category A	NA
<b>Error! Reference source not found.</b>	M/A COM
UHF 450-470 Quality Category C	NA
UHF 450-470 Quality Category D	NA
Mobile Digital	
UHF 806-870 Quality Category A	NA
UHF 806-870 Quality Category B	NA
UHF 806-870 Quality Category C	EF Johnson Company
UHF 806-870 Quality Category D	EF Johnson Company
Remote Bass/Repeater Station Digital	
High VHF 136-174 Quality Category A	NA
High VHF 136-174 Quality Category B	NA
High VHF 136-174 Quality Category C	NA
High VHF 136-174 Quality Category D	NA
Remote Bass/Repeater Station Digital	
UHF 450-470 Quality Category A	NA
UHF 450-470 Quality Category B	NA
UHF 450-470 Quality Category C	NA
UHF 450-470 Quality Category D	NA
Remote Bass/Repeater Station Digital	
UHF 806-870 Quality Category A	NA
UHF 806-870 Quality Category B	NA
UHF 806-870 Quality Category C	NA
UHF 806-870 Quality Category D	NA
Mobile Trunked Digital	
High VHF 136-174 Quality Category A	NA
High VHF 136-174 Quality Category B	NA
High VHF 136-174 Quality Category C	EF Johnson Company
High VHF 136-174 Quality Category D	EF Johnson Company
Mobile Trunked Digital	
UHF 450-470 Quality Category A	NA
UHF 450-470 Quality Category B	NA

Equipment	Link to Contractor
UHF 450-470 Quality Category C	NA
UHF 450-470 Quality Category D	NA
Mobile Trunked Digital	
UHF 806-870 Quality Category A	NA
UHF 806-870 Quality Category B	NA
UHF 806-870 Quality Category C	EF Johnson Company
UHF 806-870 Quality Category D	EF Johnson Company
Portable Trunked Digital	
High VHF 136-174 Quality Category A	NA
High VHF 136-174 Quality Category B	EF Johnson Company
High VHF 136-174 Quality Category C	EF Johnson Company
High VHF 136-174 Quality Category D	EF Johnson Company
Portable Trunked Digital	
UHF 450-470 Quality Category A	EF Johnson Company
UHF 450-470 Quality Category B	EF Johnson Company
UHF 450-470 Quality Category C	EF Johnson Company
UHF 450-470 Quality Category D	EF Johnson Company
Portable Trunked Digital	
UHF 806-870 Quality Category A	NA
UHF 806-870 Quality Category B	EF Johnson Company
UHF 806-870 Quality Category C	EF Johnson Company
UHF 806-870 Quality Category D	EF Johnson Company

## Category 2, Aviation Radios

Link to Specifications: <http://www.ga.wa.gov/pca/bids/02702-Phase2-Category2.doc>

Equipment	Link to Contractor
FM Band Aircraft Radio	Northern Airborne Technology Ltd
AM Band Aircraft Radio	Icom America, Inc.

## Category 3, Dual Receiver, In-Band Repeater

Link to Specifications: <http://www.ga.wa.gov/pca/bids/02702-Phase2-Category3.doc>

Equipment	Link to Contractor
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## Category 4, Gateway Devices:

Link to Specifications: <http://www.ga.wa.gov/pca/bids/02702-Phase2-Category4.doc>

Equipment	Link to Contractor
Category 4, Specifications for ICRI audio switch	Communications-Applied Technology
Category 4, Specifications for ACU1000	Raytheon/JPS
	M/A COM

## Category 4 IP Base Solution SmartLink

## SmartLink Radio Networks

## Category 5, Microwave

Link to Specifications: <http://www.ga.wa.gov/pca/bids/02702-Phase2-Category5.doc>

Equipment	Capacity	Link to Contractor
Hot Standby - Terminal – 6 GHz	8T, 16T	Alcatel
Hot Standby - Terminal – 6 GHz	28T, OC3	
Non-Hot Standby – Terminal – 6 GHz	8T, 16T, OC3	Alcatel
Non-Hot Standby - Terminal – 6 GHz	28T, OC3	
Hot Standby – Terminal – 11 GHz	12T, 16T	Alcatel
Hot Standby - Terminal – 11 GHz	28T, OC3	
Non-Hot Standby – Terminal – 11 GHz	12T	Alcatel
Non-Hot Standby – Terminal – 11 GHz	16T, 28T, OC3	
Hot Standby - Terminal – 18 GHz	16T, 28T	Alcatel
Hot Standby - Terminal – 18 GHz	OC3	
Non-Hot Standby – Terminal – 18 GHz	16T	Alcatel
Non-Hot Standby – Terminal – 18 GHz	28T, OC3	
Hot Standby – Terminal – 23 GHz	16T, 28T, OC3	Alcatel
Non-Hot Standby - Terminal – 23 GHz	16T	Alcatel
Non-Hot Standby - Terminal – 23 GHz	28T, OC3	
Hot Standby – Repeater – 6 GHz	8T, 16T	Alcatel
Phase II	28T, OC3	
Harris Corporation		

## Hot Standby – Repeater – 6 GHz

Non-Hot Standby – Repeater – 6 GHz	8T, 16T, OC3	Alcatel
Non-Hot Standby – Repeater – 6 GHz	28T	
Hot Standby – Repeater – 11 GHz	16T, 28T, OC3	
Non-Hot Standby – Repeater – 11 GHz	16T, 28T, OC3	
Hot Standby – Repeater – 18 GHz	16T, 28T	Alcatel
Hot Standby – Repeater – 18 GHz	OC3	
Non-Hot Standby – Repeater – 18 GHz	16T	Alcatel
Non-Hot Standby – Repeater – 18 GHz	28T, OC3	
Hot Standby – Repeater – 23 GHz	16T, 28T, OC3	Alcatel
Non-Hot Standby - Repeater – 23 GHz	16T	Alcatel
Non-Hot Standby - Repeater – 23 GHz	28T, OC3	

## Category 6 Communication Towers

Link to Specifications: <http://www.ga.wa.gov/pca/bids/02702-Phase2-Category6.doc>

Equipment	Link to Contractor
	Radian Communication Services, Inc

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REV F SPECIFICATIONS  
3-LEGGED TRIANGULAR SELF SUPPORT  
TOWERS

Valmont

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REV F SPECIFICATIONS  
GUYED TOWERS

Radian Communication Services, Inc  
Valmont

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Category 7 Waveguides and Antennas

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Link to Specifications: <http://www.ga.wa.gov/pca/bids/02702-Phase2-Category7.doc>

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Equipment

Link to Contractor

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Category 7 Waveguides and Antennas

Radio Frequency System

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Category 8, Test Equipment

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Link to Specifications: <http://www.ga.wa.gov/pca/bids/02702-Phase2-Category8.doc>

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Equipment

Link to Contractor

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2975 Digital PROJECT 25

Aeroflex

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Aeroflex

**Aeroflex**

Contractor: [Aeroflex Wichita, Inc.](#)

Page number

Contact: John Rankin                      Alternate Contact: Chad Knudson, Area  
Sales Engineer

Phone: 316-529-5204                      Area Sales                      800-835-2352 Ext 579  
Engineer                      316 529-5579 Direct

Fax: 316-522-3676                      316-524-2623

Email: [John.rankin@aeroflex.com](mailto:John.rankin@aeroflex.com)                      [Chad.knudson@aeroflex.com](mailto:Chad.knudson@aeroflex.com)

Internet address: [www.aeroflex.com](http://www.aeroflex.com)

Web catalog address:

Federal ID No.: 48-0777904

Supplier No.: W42

Total Contract worth: \$500,000,000.00

Payment address: Aeroflex Wichita, Inc.                      Order placement                      Aeroflex Wichita, Inc.  
10200 West York St                      address:                      10200 West York St  
Wichita, KS 67215                      Wichita, KS 67215

Customer Service: Rhonda Bundy

Telephone: 800-835-2352 ext 393

Fax: 316-524-2623

Ordering procedures:

Credit card acceptance: Visa, MasterCard, American Express

Minimum orders:

Delivery time: 6 to 8 weeks After Receipt of Order (ARO)

Payment terms: 0% 30 days

Shipping destination: Freight on Board (FOB) destination

Freight: Prepaid and included

Palletization: N/A

Category: **CATEGORY 8, TEST EQUIPMENT**

Equipment Line items

Link to bid Specifications <http://www.ga.wa.gov/pca/bids/02702-Phase2-Category8.doc>

Awarded Phase(s) Phase I & II

**Aeroflex – Phase I & II****Volume Discount Program - Phase 1 and Phase 2 all categories**

The volume discount will be cumulative and over the term of the contract.

(Initial Term of Three [3] Years)

Additional Discount off Net Contract Unit Price	Cumulative Total Sales from:	Cumulative Total Sales to:
1 %	\$5,000,000	\$9,999,999
1 %	\$10,000,000	\$14,999,999
1 %	\$15,000,000	\$19,999,999
0 %	\$20,000,000	\$29,999,999
0 %	\$30,000,000	\$39,999,999
0 %	\$40,000,000	\$49,999,999
0 %	\$50,000,000	\$59,999,999
0 %	\$60,000,000	\$69,999,999
0 %	\$70,000,000	\$79,999,999
0 %	\$80,000,000	\$89,999,999
0 %	\$90,000,000	\$99,999,999
0 %	\$100,000,000	\$100,000,000+

**Aeroflex – Phase I & II**

## Category 8, Test Equipment

## Price Sheets

## 2975 Digital PROJECT 25

Req. Item	Part #	Description	Manufacturer List Price
1 or 2 Units for a Single Order: Discount = 4% off Manufacturer List Price			
3 or more Units for a Single Order: Discount 5% off Manufacturer List Price			
	2975	Project 25 Radio Test Set	21,495
	2975OPT3	SmartNet/SmartZone Testing Option	4,000
	2975OPT4	P25 Trunking Radio Test Option	2,400
	2975OPT6	Control Channel Logger	3,000
	2975OPT8	SmartNet/SmartZone 900MHz (Requires Option 3)	900
	2975OPT9	Autotest 1	4,000
	2975OPT10	AES	2,000
	2975OPT12	KVL Keyloader Option	2,000
	2975OPT14	P25 Trunking VHF/UHF/ 700MHz	2,400
	2975OPT15	Audio Analyzer Option	2,000
	2975OPT16	Analog Simulcast Align Option (Requires 2975OPT15)	800
	2975OPT17	Rx BER Option	900
	2975OPT18	LTR Trunking Option	2,000
	2975OPT19	Passport © Option (Requires Version 1.9.x or later Firmware)	2,000
	2975OPT20	KVL ASN Mode Option (Requires 2975OPT12)	500
	2975OPT29	CQPSK Generate/Receive & Analysis	8,000
	2975OPT31	Windows AutoTest	1,495
	2975OPT21	P25 Secondary Ctrl Ch Broadcast Msg Option (Requires 2975OPT4 or Opt 14)	2,000
	2975OPT22	P25 Explicit Mode Operation (Requires 2975OPT14)	2,000
	2975OPT23	P25 Explicit Unit to Unit and PSTN Emulation Option (Requires 2975OPT22)	2,000
	2975OPT24	P25 Explicit Adjacent Status Broadcast Channel Message Option (Requires 2975OPT22)	2,000
	2975OPT27	SmartNet/SmartZone Rebanding Function 800MHz (Requires Opt3)	1,000
		Extended Standard Warranties for 2975	
	W2975/203	Extended Standard Warranty 36 Months	703
	W2975/205	Extended Standard Warranty 60 months	1226
		Extended Standard Warranties with Calibration for 2975	
	W2975/203C	Extended Standard Warranty 36 Months with scheduled calibration	1709
	W2975/205C	Extended Standard Warranty 60 Months with scheduled calibration	3215
		Accessories for 2975	
	AC25007	Microphone /Audio Adapter	300

**Aeroflex – Phase I & II**

Req. Item	Part #	Description	Manufacturer List Price
1 or 2 Units for a Single Order: Discount = 4% off Manufacturer List Price			
3 or more Units for a Single Order: Discount 5% off Manufacturer List Price			
	AC25009	Paper Manual, E-Manual and Calibration Software	500
	AC25009CD	E-Manual and Calibration Software	350
	AC25011	Case, Transit W/Wheels	795
	AC25012	Case, Soft Padded Carrying	159
	AC25013	Kit, 10/20 dB Pads, TNC	117
	AC25014	Scope Probe Kit	85
	AC25023	Front/Rear Cover	99
	AC25027	TNC To BNC Adapter	25
	AC25029	Accessory Pouch	40
	AC25036	DC to AC Converter, 12VDC to 110-120VAC	695
	AC25042	HF Antenna	49
	AC25043	UHF Antenna	49
	AC25044	800MHz Antenna	49
	AC25045	VHF Antenna	49
	AC4105	Return Loss Bridge (1.3 GHz)	1,219
	CALFB2975	Calibration Certificate	495
	AC25046	Blue Streak 4 foot Cable BNC (m) -TNC (m) 50Ohm	299
	AC25047	Blue Streak 4 foot Cable N (m) -N (m) 50Ohm	249
	AC25049	Blue Streak 4 foot Cable BNC (m) -N (m) 50Ohm	249
	AC25050	QMA "Quick Connect" SMA - QMA Jack Adaptor	99
	AC25053	Blue Streak 3 foot Cable N (m) - QMA (m) "Quick Connect" 50 Ohm	299
	AC25054	"Quick Connect" Combo Kit AC25053 + AC25050	348
	AC25056	4ft Blue Streak QMA to QMA quick connect cable	199
	AC25057	AC25055 + AC25056 Combo Kit	1,050
	AC25081	Site Survey Software	7,995

**Aeroflex – Phase II**

Req. Item	Part #	Description	Manufacturer List Price
1 or 2 Units for a Single Order: Discount = 4% off Manufacturer List Price			
3 or more Units for a Single Order: Discount 5% off Manufacturer List Price			
		<u>2945B SERIES COMMUNICATIONS SERVICE MONITOR</u>	
	2945B	Communication Service Monitor, STD, English	18,995
	CALFB2945	Calibration Certificate - 2945B & 2948B	614
	Opt 1	600 Ohm Matching Unit	1,093
	Opt 2 *	Analog Systems Card	2,189
	Opt 3	High Stability OCXO (This Item is Fitted as Standard on 2948B)	1,093
	Opt 4	Centronics/Relay Drive (Cannot Be Fitted With Option 5)	683
	Opt 5	GPIO Interface (Cannot Be Fitted With Option 4)	533
	Opt 6	Memory Card Drive	533
	Opt 8	SSB Demodulator	1,639
	Opt 9	Occupied Bandwidth Measurement	1,093
	Opt 10	NMT Software For 2945B (Requires Option 2 To Be Fitted)	1,093
	Opt 11	AMPS Software For 2945B (Requires Option 2 To Be Fitted)	1,093
	Opt 12	TACS Software For 2945B (Requires Option 2 To Be Fitted)	1,093
	Opt 13	MPT 1327 Software For 2945B (Requires Option 2 To Be Fitted)	1,093
	Opt 14	PMRTEST Software For 2945B (Requires Option 2 To Be Fitted)	1,093
	Opt 15	EDACS Radio Software For 2945B (Requires Opt 2 To Be Fitted)	1,093
	Opt 16	EDACS Repeater Software For 2945B (Req. Opt 2 To Be Fitted)	1,093
	Opt 18	LTR For 2945B (Requires Option 2 To Be Fitted) (Availability TBA)	1,135
	Opt 21 *	Channel Demodulation Filter For 2945B	1,639
	Opt 22	POCSAG Software For 2945B	1,352
	Opt 23	CCITT Filter (Cannot Be Fitted With Option 24)	536
	Opt 24	CMESS Filter (Cannot Be Fitted With Option 23)	536
	Opt 26	Tone Remote	852
	Opt 29	Additional Notch Board	454
	Opt 30	Bail Arm Handle & Front Stowage Cover For 2945B	683
	Opt 31	IF Output Option	852
	Opt 32 *	Internal Battery Pack (2945B Only)	284
		* Only two of Options 2, 21 & 32 can be fitted to a 2945B at the same time.	
		Extended Standard Warranties for 294X Series	
	W2945B/203	Extended Standard Warranty 36 Months	479
	W2945B/205	Extended Standard Warranty 60 months	902
		Extended Standard Warranties with Calibration for 294X Series	
	W2945B/203C	Extended Standard Warranty 36 Months with scheduled calibration	1,276

**Aeroflex – Phase II**

Req. Item	Part #	Description	Manufacturer List Price
1 or 2 Units for a Single Order: Discount = 4% off Manufacturer List Price			
3 or more Units for a Single Order: Discount 5% off Manufacturer List Price			
	W2945B/205C	Extended Standard Warranty 60 Months with scheduled calibration	2,403
		Accessories for 2945B Series	
	44991/145	Microphone For 2945B	249
	46662/571	Ever-Ready Padded Case For 2945B	636
	46662/616	Ever-Ready Padded Case For 2945B Fitted With Option 30	1,009
	46662/779	Soft Carrying Case	219
	46880/114	Service Manual 2945B	400
	46880/115	Service Manual 2948B	400
	46884/648	Serial Printer Interface Cable 1.5M	173
	46884/649	Serial Port To PC Cable 25Way 1.5M	183
	46884/650	Serial Port To PC Cable 9Way 1.5M	196
	46884/728	Rack Mounting Kit For 2945	239
	54112/163	Transit Case (Hard) For 2945	1,755
	54421/001	BNC Telescopic Antenna For 2945, 2955, 2965	101
	54421/002	Directional Power Head (HF) 1 MHz To 50 MHz For 2945, 2955B, 2965	4,958
	54421/003	Directional Power Head (VHF/UHF) 25 MHz To 1 GHz, 2945, 2955B, 2965	7,160
	54431/023	Attenuator, 20dB AF For 2945, 2965	211
	59000/375	Memory Card 2M For 2945B & 2965A Series	563
	59000/189	Memory Card 128K For 2945, 2965	460
	59999/170	RF Bridge	1,557
	AC1109W	Easyspan II – Windows – USA	695

Category 8, Test Equipment  
Price Sheets

**Aeroflex: IFR 3920 Digital Radio Test Set**

Req. Item	Part #	Description	Manufacturer List Price
1 or 2 Units for a Single Order: Discount = 4% off Manufacturer List Price			
3 or more Units for a Single Order: Discount 5% off Manufacturer List Price			
	3920	Digital Radio Test Set 1MHz - 1GHz with Standard Analog Duplex Operation	27,995
	390XOPT051	Site Monitoring Application	4,000

**Aeroflex – Phase II**

	392XOPT053	DMM Hardware Option	1,000
	390XOPT054	IQ Gen Modulation (for IQ Creator waveforms)	3,800
	390XOPT055	Audio Analyzer Option	2,000
	392XOPT058	2.7GHz Frequency Range Extension Option	2,000
	390XOPT059	Autotest II for Analog FM & AM Radio Systems	4,000
	390XOPT060	Harmonic and Spurious Test	3,000
	390XOPT061	Tracking Generator for Spectrum Analyzer	1,000
	390XOPT200	P25 Conventional Parametric Analysis with IMBE Vocoder and DES Encryption	2,000
	390XOPT201	P25 Trunking VHF/UHF/700/800MHz (Requires 390XOPT200)	2,400
	390XOPT204	LSM Generate and Receive/Analysis (Requires 390XOPT200)	8,000
	390XOPT207	SmartNet / SmartZone Trunking Option	4,000
	390XOPT209	KVL Keyloader Option (Requires 390XOPT200)	2,000
	390XOPT212	Explicit Mode Trunking (Requires 390XOPT200 and 390XOPT201)	2,000
	390XOPT216	P25 IMBE Vocoder Board (Update Price - On new units this is provided as standard)	795
	390XOPT218	Autotest II for P25 Radio Systems (Requires 390XOPT200)	2,000
	390XOPT240	AES Encryption (Requires 390XOPT200)	2,000
	390XOPT250	Occupied Bandwidth for P25 (Requires 390XOPT 200)	2,000
	390XOPT400	DMR (Moto TRBO) ETSE 102-361	2,000
	390XOPT600	XTS-5000 Autotest/Alignment Software (Requires 390XOPT059 and OPT218)	2,000
	390XOPT603	TIA/EIA-603 Land Mobile Radio Test Software (Requires 390XOPT059)	2,000
	Accessories for 3920		
	AC24009	DMM Test Leads for use with 392XOPT053. Category 3 rated.	166
	AC24010	20 AMP Current Shunt 0.01 Ohm.	166
	AC25011	Transit W/Wheels	795
	AC25012	Soft Padded Carrying	159
	AC25013	Kit, 10/20 dB Pads, TNC	117
	AC25014	Scope Probe Kit	85
	AC25023	Front/Rear Cover	99
	AC25027	TNC To BNC Adapter	25
	AC25029	Accessory Pouch	40
	AC25036	DC to AC Converter, 12VDC to 110-120VAC	695
	AC25042	HF Antenna	49
	AC25043	UHF Antenna	49

**Aeroflex – Phase II**

	AC25044	800MHz Antenna	49
	AC25045	VHF Antenna	49
	AC25055	QMA Adapter Kit (Includes 24 assorted adapters Type-N, BNC, TNC, SMA UHF,	899
	AC25059	6 dB / 150 Watt 1.5 GHz Attenuator	525
	AC25060	10 dB / 150 Watt 1.5 GHz Attenuator	525
	AC25061	50 ohm 250 Watt 5 GHz Termination	675
	AC4105	Return Loss Bridge	1,219
	AC8645	Microphone	78
	AC25046	Blue Streak 4 foot Cable BNC (m) -TNC (m) 50Ohm	299
	AC25047	Blue Streak 4 foot Cable N (m) -N (m) 50Ohm	249
	AC25049	Blue Streak 4 foot Cable BNC (m) -N (m) 50Ohm	249
	AC25050	QMA "Quick Connect" SMA - QMA Jack Adaptor	99
	AC25053	Blue Streak 3 foot Cable N (m) - QMA (m) "Quick Connect" 50 Ohm	299
	AC25054	"Quick Connect" Combo Kit AC25053 + AC25050	348
	AC25056	4ft Blue Streak QMA to QMA quick connect cable	199
	AC25057	AC25055 + AC25056 Combo Kit	1,050
	CALFB390X	Calibration Certificate	495
	Extended Warranty Options		
	W390X/203	Extended Standard Warranty 36 Months	1,035
	W390X/205	Extended Standard Warranty 60 Months	2,067
	W390X/203C	Extended Standard Warranty 36 Months with Scheduled Calibration	1,796
	W390X/205C	Extended Standard Warranty 60 Months with Scheduled Calibration	3,591
	Accessories Supplied as Standard for 3920		
	AC25023	1 x Front/Rear Cover	
	AC25027	2 x TNC to BNC Adapter	
		1 x N to BNC Adapter	
		1 x CD Manual	
		1 x AC Line Cord	
	AC25043	1 x UHF Antenna	
	AC25044	1 x 800MHz Antenna	
	AC25045	1 x VHF Antenna	

Req. Item	Part #	Description	Manufacturer List Price
1 or 2 Units for a Single Order: Discount = 4% off Manufacturer List Price 3 or more Units for a Single Order: Discount 5% off Manufacturer List Price			
		<u>3500A Handheld Digital Radio Test Set</u>	
	3500A	Handheld 1GHz Radio Test Set	14,995
	35XXOPT01	Spectrum Analyzer Option	1,000
	35XXOPT02	Oscilloscope Option	1,000
	35XXOPT07	P25 Test Option	3,000
	CALFB3500	Calibration Certificate - 3500A	395
		<u>Accessories for 3500A</u>	
	AC0820	Desk Top Stand	50
	AC0826	Tripod	225
	AC24006	Tripod, Dolly, Stand	295
	AC27001	Case, Transit	495
	AC27002	Attenuator (20 dB / 50 W), Adapter (N-F to BNC-F), Adapter (N-M to TNC-M)	595



**Aeroflex – Phase II**

Req. Item	Part #	Description	Manufacturer List Price
1 or 2 Units for a Single Order: Discount = 4% off Manufacturer List Price			
3 or more Units for a Single Order: Discount 5% off Manufacturer List Price			
	AC27003	Attenuator (20 dB / 150 W), Adapter (N-F to BNC-F), Adapter (N-M to BNC-F)	795
	AC27004	Case, Soft -Sided Carrying	99
	AC27005	Battery, Spare	199
	AC27006	Flip Cover	199
	AC27008CD	Manual, CD, OP/ICW, 3500 (One Supplied Standard)	50
	AC27009CD	Maintenance Manual (CD)	250
	AC27010PP	Manual, Getting Started, 3500 (One Supplied Standard)	50
	AC25042	Antenna (BNC) (50 MHz)	49
	AC25043	Antenna (BNC) (450 MHz)	49
	AC25044	Antenna (BNC) (800 MHz)	49
	AC25045	Antenna (BNC) (150 MHz)	49
	AC27013	Directional Coupler (20 to 200 MHz), Adapter (N-M to BNC-F) Qty 2, Attenuator (10 dB), Cable (BNC) (M-M) (16 in) Qty 2	1,700
	AC25055	QMA Adapter Kit (Includes 24 assorted adapters)	899
	AC25056	4ft Blue Streak QMA to QMA quick connect cable	199
	AC25057	AC25055 + AC25056 Combo Kit	1,050
	AC25081	Site Survey Software	7,995
		<u>Extended Warranty Options</u>	
	W3500/203	Extended Standard Warranty 36 Months	525
	W3500/205	Extended Standard Warranty 60 months	989
	W3500/203C	Extended Standard Warranty 36 Months with scheduled calibration	1,715
	W3500/205C	Extended Standard Warranty 60 Months with scheduled calibration	3,145
		Accessories Supplied as Standard for 3500A	
		1 x Case, Soft -Sided Carrying	
		1 x External DC Power Supply	
		1 x Power Cable (AC)	
		1 x Handset	
		1 x Short-Open-Load VSWR Calibrator	
		1 x Comm Breakout Box	
		1 x Cable (TNC) (M-M) (48 in)	
		2 x Cable (BNC) (M-M) (48 in)	
		5 x Adapter (BNC-F to TNC-M)	
		2 x Fuse, Spare (5 A, 32 Vdc, Type F)	
		1 x Case, Accessory	
		1 x Power Cable (DC cigarette lighter)	
		1 x Getting Started Manual (Paper)	
		1 x Operation/ICW Manual (CD)	

**Aeroflex – Phase II**

Req. Item	Part #	Description	Manufacturer List Price
1 or 2 Units for a Single Order: Discount = 4% off Manufacturer List Price			
3 or more Units for a Single Order: Discount 5% off Manufacturer List Price			
		1 x AC25044 Antenna (BNC) (800 MHz)	
		1 x AC25045 Antenna (BNC) (150 MHz)	
		1 x AC25043 Antenna (BNC) (450 MHz)	
		1 x AC25042 Antenna (BNC) (50 MHz)	
		1 x Flash Drive, 1 GB USB	

**CONTRACTOR INFORMATION**

**Contractor:** [Alcatel-Lucent USA Inc.](#)  
**Page number** <http://www.ga.wa.gov/pca/bids/02702-Phase2-Category5.doc>  
**Contact:** Merle Watt **Alternate Contact:** Glenn Estes  
**Phone:** 307-775-9806 972-477-5009  
**Fax:** 972-477-1408 972-477-8288  
**Email:** [Merle.watt@alcatel-lucent.com](mailto:Merle.watt@alcatel-lucent.com) [Glenn.i.estes@alcatel.com](mailto:Glenn.i.estes@alcatel.com)  
**Internet address:** <http://www.alcatel.com/>  
**Product Catalog Radio:** <http://www.ga.wa.gov/pca/contract/02702-Alcatel-Microwave-Network-102804.xls>  
**Product Catalog Network:**  Alcatel Phase 1 Discounts 2007.pdf  Microwave Price Catalog 2007.pdf  
**Federal ID No.:** 22-3408857  
**Supplier No.:** W1159  
**Total Contract worth:** \$500,000,000.00  
**Payment address:** Alcatel-Lucent USA Inc.  
**Wire Remit Address** **Order placement address:** Alcatel-Lucent USA Inc.  
[Alcatel-Lucent](#) Alcatel-Lucent c/o Order Administration,  
J.P. Morgan Chase Bank 600 March Road, Ottawa, ON  
Account # 9101449099 K2K 2E6 CANADA  
ABA # 021000021 Phone: 613-784-4227  
New York, NY 10081 Toll Free: 800-777-6804  
Fax: 613-599-3632  
Email address:  
order.now@alcatel-lucent.com  
**Overnight Check Remit Address**  
Bank of America  
6000 Feldwood Road  
Lockbox # 100317  
College Park, GA 30349  
**Regular Mailing Address**  
[Alcatel-Lucent](#)  
PO Box 100317  
Attn: Accounts Receivable  
Atlanta GA 30384-0317  
**Customer Service:** Juanita Brown  
**Telephone:** 613-784-4227  
**Fax:** 613-599-3632  
**Ordering procedures:** Contact Local Sales Rep  
**Credit card acceptance:** None  
**Minimum orders:** None

<b>Delivery time:</b>	90 days After Receipt of Order (ARO) All Specialized Configurations orders shall not exceed 120 days.
<b>Payment terms:</b>	0% 30 days
<b>Shipping destination:</b>	Freight on Board (FOB) destination
<b>Freight:</b>	Prepaid and included
<b>Palletization:</b>	N/A
<b>Category</b>	Category 5, Microwave
<b>Equipment Line items</b>	
<b>Link to bid Specifications</b>	<a href="http://www.ga.wa.gov/pca/bids/02702-Phase2-Category5.doc">http://www.ga.wa.gov/pca/bids/02702-Phase2-Category5.doc</a>
<b>Awarded Phase(s)</b>	Phase I & II



## National Territory Sales



**Reno Moccia – West Director**  
307-421-7077

**Scott Mehal – Northwest**  
206-465-7453

**Jay Sungu**  
Northern CA, NV  
559-360-7971

**Sean Cleveland**  
Hawaii  
808-557-4412

**Sheri Johnson**  
Southern CA  
714-686-9515

**Merle Watt - Rocky Mtn**  
307-421-7077

**Mark Semans – MN, WI, MI**  
989-413-0474

**Joe Annett – IL, IN, IA, NE**  
630-639-8549

**Todd Nate**  
North Tx, OK, KS  
303-506-3764

**Steve Williams – South Texas**  
281-386-7065

**Dana Peissig – MO, AR, LA, AL, MS, TN**  
919-637-4299

**Neal Salzman – South Director**  
312-543-0559

**John Cafaro – East Director**  
201-214-4092

**Gregg Grisevich – NY, CT**  
860-839-0540

**Pete Dardaris - PA**  
610-256-8809

**Kurt Wiest - Phila**  
215-529-4322

**Jim Kirchner – OH, KY, WV**  
330-357-2335

**Keith Simms – VA, MD, DC**  
703-407-9849

**Chris Kelley – Southeast**  
919-637-4299

**John Scanlon – Northeast**  
508-320-7771

**Keith Lerch – NYC City**  
908-313-6913

**Ron Lloyd – NJ, DE**  
732-859-7354

**Walt Paskowski – Sales VP 703-244-2912**

**Alcatel**  
**Phase 1 Product DISCOUNTS**

MDR-8000 DIGITAL RADIO / ALL OPTIONS	25% DISCOUNT
MDR-8706s 6GHz – SONET (OC-3)	50% DISCOUNT
MDR-8706s COMMPACK 6GHz – SONET (OC-3)	45% DISCOUNT
MDR-8711s 11GHz – SONET (OC-3)	50% DISCOUNT
MDR-8711s 11GHz COMMPACK SONET (OC-3)	45% DISCOUNT
MDR-8605u-5.8GHz NORTH AMERICAN (DS3) SIGNAL INTERFACE	45% DISCOUNT
COMMPACK (DS3) SIGNAL INTERFACE	43% DISCOUNT
MDR-8606 – 6GHz NORTH AMERICAN (DS3) SIGNAL INTERFACE	50% DISCOUNT
COMMPACK (DS3) SIGNAL INTERFACE	47% DISCOUNT
MDR-8611-11GHz NORTH AMERICAN (DS3) SIGNAL INTERFACE	50% DISCOUNT
COMMPACK (DS3) SIGNAL INTERFACE	47% DISCOUNT
MDR-8505u-5.8GHz -UNLICENSED – NORTH AMERICAN 2 DS-1 RADIO	32% DISCOUNT
COMMPACK 2 DS-1 RADIO	18% DISCOUNT
4 DS-1 RADIO	38% DISCOUNT
COMMPACK 4 DS-1 RADIO	30% DISCOUNT
8 DS-1 RADIO	49% DISCOUNT
COMMPACK 8 DS-1 RADIO	44% DISCOUNT
16 DS-1 RADIO	54% DISCOUNT
COMMPACK 16 DS-1 RADIO	50% DISCOUNT
MDR-8X06-6GHz - NORTH AMERICAN 2 DS-1 RADIO	37% DISCOUNT
COMMPACK 2 DS-1 RADIO	29% DISCOUNT
4 DS-1 RADIO	43% DISCOUNT
COMMPACK 4 DS-1 RADIO	37% DISCOUNT
8 DS-1 RADIO	52% DISCOUNT
COMMPACK 8 DS-1 RADIO	48% DISCOUNT
12 DS-1 RADIO	55% DISCOUNT
COMMPACK 12 DS-1 RADIO	51% DISCOUNT
16 DS-1 RADIO	56% DISCOUNT
COMMPACK 16 DS-1 RADIO	52% DISCOUNT
MDR-8x10 10/11GHz - NORTH AMERICAN 2 DS-1 RADIO	37% DISCOUNT
COMMPACK 2 DS-1 RADIO	29% DISCOUNT

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4 DS-1 RADIO	45% DISCOUNT
COMMPACK 4 DS-1 RADIO	37% DISCOUNT
8 DS-1 RADIO	52% DISCOUNT
COMMPACK 8 DS-1 RADIO	48% DISCOUNT
12 DS-1 RADIO	55% DISCOUNT
COMMPACK 12 DS-1 RADIO	51% DISCOUNT
16 DS-1 RADIO	56% DISCOUNT
COMMPACK 16 DS-1 RADIO	52% DISCOUNT
RACK OPTIONS	25% DISCOUNT
RADIO NETWORK MANAGEMENT	25% DISCOUNT

**Phase II Category 5, Microwave****Alcatel**

<b>Manufacturer</b>	<b>Freq. Band</b>	<b>Capacity in T1's</b>	<b>Part number</b>	<b>Total Price</b>
<b>Hot Standby - Terminal – 6 GHz</b>				
Alcatel	6 Ghz	8T	MDR-8706-8-29-HS	\$21,266
Alcatel	6 Ghz	16T	MDR-8706-16-29-HS	\$22,709
<b>Non-Hot Standby – Terminal – 6 GHz</b>				
Alcatel	6 Ghz	8T	MDR-8706-8-29	\$12,410
Alcatel	6 Ghz	12T	MDR-8706-12-29-NS	\$12,570
Alcatel	6 Ghz	16T	MDR-8706-16-29-NS	\$13,007
<b>Hot Standby – Terminal – 11 GHz</b>				
Alcatel	11 GHz	12T	MDR-8710-12-27-HS	\$24,765
Alcatel	11 GHz	16T	MDR-8710-16-27-HS	\$25,699
<b>Non-Hot Standby – Terminal – 11 GHz</b>				
Alcatel	11 GHz	12T	MDR-8710-12-27-NS	\$14,282
<b>Hot Standby - Terminal – 18 GHz</b>				
Alcatel	18 GHz	16T	9418-AWY-16-HS	\$11,406
Alcatel	18 GHz	28T	9418-AWY-28-HS	\$14,233
<b>Non-Hot Standby – Terminal – 18 GHz</b>				
Alcatel	18 GHz	16T	9418-AWY-16-NS	\$6,996
<b>Hot Standby – Terminal – 23 GHz</b>				
Alcatel	23 GHz	16T	9423-AWY-16-HS (with 1 ft. antenna)	\$12,006
Alcatel	23 GHz	28T	9423-AWY-28-HS (with 1 ft. antenna)	\$14,833
Alcatel	23 GHz	SONET-OC3	MDR-9X23S-HS (no DS1 access)	\$29,262
<b>Non-Hot Standby - Terminal – 23 GHz</b>				
Alcatel	23 GHz	16T	9423-AWY-16-NS (with 1 ft. antenna)	\$7,596
<b>Hot Standby – Repeater – 6 GHz</b>				
Alcatel	6 GHz	8T	MDR-8706-8-29-HS	\$41,970
Alcatel	6 GHz	16T	MDR-8706-16-29-HS	\$44,855
<b>Non-Hot Standby – Repeater – 6 GHz</b>				
Alcatel	6 GHz	8T	MDR-8706-8-29-NS	\$24,258
Alcatel	6 GHz	16T	MDR-8606-16-29-NS	\$25,451
Alcatel	6 GHz	SONET-OC3	MDR-8706s-155-29-NS	\$31,911
<b>Hot Standby – Repeater – 18 GHz</b>				
Alcatel	18 GHz	16T	9418-AWY-16-HS	\$21,726
Alcatel	18 GHz	28T	9418-AWY-28-HS	\$25,664
<b>Non-Hot Standby – Repeater – 18 GHz</b>				
Alcatel	18 GHz	16T	9418-AWY-16-NS	\$12,906
<b>Hot Standby – Repeater – 23 GHz</b>				
Alcatel	23 GHz	16T	9418-AWY-16-NS	\$22,926
Alcatel	23 GHz	28T	9423-AWY-28-HS (with 1 ft. antenna)	\$26,864
Alcatel		SONET-OC3	MDR-9X23S-HS (No DS1 access)	\$57,438
<b>Non-Hot Standby - Repeater – 23 GHz</b>				
Alcatel	23 GHz	16T	9423-AWY-16-NS (with 1 ft. antenna)	\$14,106

**WSP System Rack Configuration & Management**

Each rack pricing shall contain and/or include:

- 3 ea. WCSA compliant 6 GHz Sonet-OC3, space diversity capable microwave terminal.
- 1 ea. Multi-Service Platform (ATM)Router with 2ea 1-Port OC3, 1ea 3-port DS3, 1ea 4-Port Ethernet and 1ea 8-Port T1 Cards as a standard configuration.
- 2 ea. T1/E1 Channel Bank Multiplexer with 2 FXO, 2 FXS and 12 4-wire E&M Channel Cards as a standard configuration.
- 1ea 1RU Fuse Panel
- 1ea Rack Isolation and Bracing Kit (per R56 Standard)
- Option to add DS3 WCSA compliant Microwave radio

Each rack will need to reserve room for:

- VF Jackfield (2RU)
- T1 / Ethernet RJ045 Jackfield (1RU)
- Wayside T1 Router (1RU)
- Wayside Ethernet 16 port switch ( 1 RU)

### **Network Management:**

- **All OC3 & DS3 Radios, Multi-Service Platform (ATM) Routers and T1/E1 Channel Bank Multiplexers must be managed by a single Network Management System.**

Req. Item	Description	*Qty	Unit	Unit Price	Total Price
1.	Complete Microwave Rack Description *Qty Unit Unit Price Total Price • 3 each 6 GHz OC-3, space diversity radios with +29 dBm power output, 7' Seismic rack, 19" wide, with PDU, and grounding kit.	1	EA	\$60,361	\$60,361
	• 1 ea. 7270 Multi-Service Platform (ATM)Router with 2ea 1-Port OC3, 3ea 1-port DS3, 1ea 4-Port Ethernet and 1ea 8-Port T1 Cards as a standard configuration. <b>Please see Attachment C for 7270 configuration details</b>	1	EA	\$43,455	\$43,455
	• 2 ea. 3630 T1/E1 Channel Bank Multiplexer with 2 FXO, 2 FXS and 12 4-wire E&M Channel ports as a standard configuration. Please see Attachment D for configuration details.	1	EA	\$8,540	\$8,540
	• Not included in Microwave rack, but included in solution is the 5620 Network Management. This price reflects network management for 55 racks as described above. Please see Attachment E for configuration details	1	EA	\$5,355.45	\$5,355.45
<b>Total price</b>					<b>\$117,711.45</b>

**Response on the 18 and 23 Ghz Space Diversity pricing.**

The 18 and 23 Ghz space diversity configurations are non-standard. The configuration is accomplished by combining two non-standby ODU's with a Hot-standby IDU. The manufacturing build cost is similar to the cost to build two non-standby terminals so the pricing has been set up to reflect the non-standby pricing. The pricing for a 18 Ghz OC3 terminal discounted is \$15,701 per the WSCA pricing. Doubling it for the space diversity configuration brings us to the \$31,402. the other 18 and 23 Ghz configurations are similarly priced.

<b>Req. Item</b>	<b>Description Not for bid award, this pricing will be use to add and remove equipment as require per site location.</b>	<b>Qty</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Total Price</b>
1.	6 GHz Sonet-OC3, space diversity capable microwave terminal +29 dBm, Non Standby, Space Diversity	1	EA	\$20,363*	\$20,363*
2.	11 GHz Sonet-OC3, space diversity capable microwave terminal +27 dBm, Non Standby, Space Diversity	1	EA	\$21,838*	\$21,838*
3.	18 GHz Sonet-OC3, space diversity capable microwave terminal	1	EA	\$31,402*	\$31,402*
4.	23 GHz OC3 Sonet-OC3, space diversity capable microwave terminal	1	EA	\$32,484*	\$32,484*
5.	6 GHz DS3 space diversity capable microwave terminal +29 dBm, Non Standby, Space Diversity	1	EA	\$17,725*	\$17,725*
6.	11 GHz DS3 space diversity capable microwave terminal +27 dBm, Non Standby, Space Diversity	1	EA	\$19,200*	\$19,200*
7.	18 GHz DS3 space diversity capable microwave terminal	1	EA	\$9,700*	\$9,700*
8.	23 GHz DS3 space diversity capable microwave terminal	1	EA	\$9,700*	\$9,700*

9.	Multi-Service Platform (ATM) Router with 2ea 1-Port OC3, 1ea 3-port DS3, 1ea 4-Port Ethernet and 1ea 8-Port T1 Cards as a standard configuration.	1	EA	\$43,455*	\$43,455*
10.	T1/E1 Channel Bank Multiplexer with 2 FXO, 2 FXS and 12 4-wire E&M Channel Cards as a standard configuration.	1	EA	\$4,270*	\$4,270*
11.	1RU Fuse Panel	1	EA	\$341*	\$341*
12.	Rack Isolation and Bracing Kit (per R56 Standard	1	EA	\$113*	\$113*
13.	5620 EN Values: <ul style="list-style-type: none"> <li>• 7470 = 40 points</li> <li>• 7270 = 20 points</li> <li>• 3600 = 10 points</li> <li>• 3630 = 5 points</li> <li>• MDR8000s = 2 points</li> </ul>	1pt	EA	\$125*	\$125*

\*Pricing from the WSCA Contract.

**Communications – Applied Technology**

RF PERFORMANCE 2.47 GHz BAND RADIO			
<b>Purpose</b> The purpose of this section is to define the RF performance characteristics for radio equipment operating in the 2.47 GHz microwave radio band.		Read and Understood	
<b>Regulatory Compliance</b> All radio equipment supplied under this contract shall meet the requirement of the approved Sub-Sections of Volume 47 of the Federal Code of Regulations.		Comply	
<b>Configuration</b> The equipment supplied for this band shall be available in a hot-standby version having redundant receiver, transmitter, power and multiplex components.		Comply	
<b>Frequency Range and Bandwidth</b> The equipment supplied for this band shall comply with the following requirements:		Comply	
<b>Capacity</b>	<b>Frequency in MHz</b>	<b>RF Bandwidth in MHz</b>	
2xDS1	2450-2483.5	1.25	Comply
4 xDS1	2450-2483.5	2.5	Comply
8 xDS1	2450-2483.5	2.5	Comply
Bidders may provide other bandwidths as options. These shall be fully compliant with the current FCC Part 101 technical requirements.		Read and Understood	
<b>Feedline Connection</b> The antenna connection shall be a Type-N female. If an adapter is required to convert from the standard connector on the radio unit, it shall be supplied and included in the unit price.		Comply	
The system shall operate with an antenna system with a peak return loss of 18 dB or greater.		Comply	
A single feedline connection point shall be provided for all radio configurations except space diversity. Space diversity configurations shall have two feedline connection points, one for one receiver and any transmitters and the other for the diversity receiver.		Comply	
<b>RF Power Levels</b>			

The equipment shall have a minimum output high-power level of +33dBm and low-power level of less than or equal to +15dBm	Comply	The high-power level will be + 34 dBm. Low-power level will be + 14 dBm.
Power levels shall be measured at the feedline connection point and shall include all branching losses. Hot-standby configurations may have power levels reduced from the levels listed above to account for switching losses.	Comply	
Automatic transmitter power control (ATPC) shall be available as an option. It shall be capable of being disabled in the field by operator programming.	Comply	
<b>General Transmitter Specifications</b>		
Frequency stability shall be $\pm 0.001$ percent or greater over the full operating range of the equipment.	Comply	
The transmitter shall be fully solid state.	Comply	
Failure of a redundant amplifier in hot-standby configurations shall not reduce the power output from the radio.	Comply	
Replacement of a failed redundant (standby) amplifier shall not cause a system outage.	Comply	
The transmitter shall be equipped with ability to monitor output power and frequency on an in-service basis.	Comply	
<b>Receiver Thresholds</b>		
Receivers shall have the following guaranteed receive thresholds as a maximum level to obtain a BER $1 \times 10^{-3}$ in a non-protected configuration.	Comply	

<b>Guaranteed capacity at minimum Received Signal Level (RSL) in dBm as listed below.</b>		
2 - DS-1 -87	Comply	
4 - DS-1 -84	Comply	
8 - DS-1 -77	Comply	
Received threshold levels shall be measured at the feedline connection point and shall include all branching losses.	Comply	
<b>Interference Criteria</b> Threshold to interference (T/I) ratios for a like signal required are shown below for the following scenarios:	Comply	
2 DS-1          4 DS-1          8 DS-1 Co-Channel 28                28                28 Adjacent Channel -8                -8                -8	Comply	
<b>General Receiver Specifications</b>		
The receiver frequency stability shall be $\pm 0.001$ percent or better over the operating range of the receiver.	Comply	
The receiver shall have a maximum received signal limit of not less than -17dBm when at a 1 in $10^{-3}$ BER.	Comply	
The dynamic range of the receiver shall be a minimum of 58 dB.	Comply	

Req. Item	Description	*Qty	Unit	Unit Price	Total Price
1	2.47 GHz, Digital Radio, Hot Standby, 2XDS1, High Power (+34dBm)  <i>For Product Bid State:</i> <i>Mfg.: <u>Alcatel USA Marketing, Inc.</u></i> <i>Brand/Model: <u>MDR-8502-2-34-HS</u></i>	10	EA	\$19,883.00	\$198,830.00
2.	2.47 GHz, Digital Radio, Hot Standby, 4XDS1, High Power (+34dBm)  <i>For Product Bid State:</i> <i>Mfg.: <u>Alcatel USA Marketing, Inc.</u></i> <i>Brand/Model: <u>MDR-8502-4-34-HS</u></i>	10	EA	\$20,644.00	\$206,440.00
3.	2.47 GHz, Digital Radio, Hot Standby, 8XDS1, High Power (+34dBm)  <i>For Product Bid State:</i> <i>Mfg.: <u>Alcatel USA Marketing, Inc.</u></i> <i>Brand/Model: <u>MDR-8702-8-34-HS</u></i>	10	EA	\$21,928.00	\$219,280.00
<b>Total price for bid evaluation and award</b>					<b>\$624,550.00</b>
<b>The listed prices represent % off manufacturer list price</b>					<b>45,47 &amp; 51% Respectively</b>

\*The Qty is an estimate usage; the actual qty will be dependent on funding and the final system design.

## CONTRACTOR INFORMATION

Contractor: [Communications-Applied Technology](#)  
Page number  
Contact: Seth Leyman                      Alternate Contact: Josie Leyman  
Phone: 800-229-3925                      800-229-3925  
Fax: 703-471-4428                      703-471-4428  
Email: [leymans@c-at.com](mailto:leymans@c-at.com)                      [leymanj@c-at.com](mailto:leymanj@c-at.com)  
Internet address: [www.c-at.com](http://www.c-at.com)  
Web catalog address:  
Federal ID No.: 54-1215868  
Supplier No.: W83  
Total Contract worth: \$500,000,000.00  
Payment address: Communications-Applied                      Order placement                      Communications-Applied  
Techology                      address:                      Techology  
11250 – 14 Roger Bacon Dr                      11250 – 14 Roger Bacon Dr  
Reston, VA 20190-5202                      Reston, VA 20190-5202  
Customer Service: Seth Leyman  
Telephone: 800-229-3925  
Fax: 703-471-4428  
Ordering procedures:  
Credit card acceptance: Visa, MasterCard  
Minimum orders:  
Delivery time: 60 days After Receipt of Order (ARO)  
Payment terms: 0% 30 days  
Shipping destination: Freight on Board (FOB) destination  
Freight: Prepaid and included  
Palletization: N/A  
Category: Category 4, Gateway Devices; Item B, ICR Unit  
Equipment Line items  
Link to bid Specifications  
Link to Price Sheets  
Awarded Phase(s)                      Phase II

**Communications – Applied Technology – Phase II**

The purpose of this section is to purchase an audio switch unit(s) that has interface adapters for a variety of communications devices and mediums (VHF/UHF radio, telephone or Satcom, HF radio, local operator, etc.). The switch shall consist of a small portable control unit containing all audio and switching circuitry, medium interface connectors, controls and indicators. Accessory adapters for a variety of external communications devices and mediums shall be supported.

**Category 4, Specifications for ICRI audio switch**

Description
ICRI Ordering/Part No.: 500.9250 with single talk group; 500.9260 with two talk groups for all ports with external control switches
ICRI RX Audio Input
Input Impedance: Unbalanced, 80 ohms nominal.
Input level: -32 dBm to + 12 dBm, no adjustment required.
Frequency Response: 280 Hz to 3400 kHz $\pm$ 2dB.
VOX Attack Time: Less than 2 ms, nominal, for typical speech.
VOX Threshold: Adjustable -32 to -6 dBm.
VOX Hang Time (Tail Time): Adjustable 0.5 to 2 seconds.
VOX Timeout Timer: Adjustable 30 to 90 seconds.
ICRI TX Audio Output
Output Impedance: Unbalanced, 1000 ohms nominal.
Output Level: -40 to -18 dBm, adjustable.
Frequency Response: 280 to 3400 Hz $\pm$ 2dB
Audio Delay: Both nets, individually adjustable; 0, 50, 100,150, 200, 250, 300, 350, 400 and 500 ms.
ICRI PTT Output
Output Type: Dual, (a) open drain; (b) open drain shunting 6.65 K control resistor (Motorola Saber/AstroSaber compatibility).
Polarity: Active low.
Maximum Sink Current: 200 ma.
Maximum Open Circuit Voltage: + 60 vdc.
Acoustic Coupler Interface
Compatibility: C-AT part no. 179.0655, with electret microphone.
VOX Attack Time: Less 2 ms, nominal, for typical speech
VOX Hang Time: Adjustable 0.5 to 2 seconds.
Cellular/Auxiliary Input
Input Type: Unbalanced
Input Range/VOX Threshold: -50 to +10 dBm, adjustable.
VOX Attack Time: Less 2 ms, nominal, for typical speech
VOX Hang Time: Adjustable 0.5 to 2 seconds.
VOX Timeout Timer: Adjustable 30 to 90 seconds.
Output Type: Unbalanced.
Output Range: -40 to +3 dBm, adjustable.
Handset
Compatibility: C-AT part number 280.0125 handset with noise canceling electret microphone and PTT bar.

Description
Handset Volume Control: 70 dB range.
Initiation: PTT bar.
General/Environmental
ICRI Controls: Guarded, power on/off switch; switches (7), handset volume control., Talk Group1/OFF/Talk Group 2 (ICRI 500.9260 only)
ICRI Indicators: Power “OK” LED, power “LOW” LED, channel active LEDs (7).
ICRI connectors: Positive lock, Radio channel I/O (5), Coupler/Cellular/auxiliary input connector, handset connector, power connector.
DC Input Power: +6.5 to + 20 VDC @ 0.15A maximum.
AC Input Power: 115 to 230 VAC $\pm$ 15%, 47-63 Hz, 3 VA maximum (with 320.0431 ac adapter).
Weight: 3.3 lbs. (1.5 kg), without adapters and accessories.
Size: 3.5” H X 10.0” W X 7.0” D (8.9 X 25.4 X 17.8 cm), excluding control panel connectors/switch protrusions.
Temperature: Operating: -20 to +60 degrees C; storage: -40 to +85 degrees C.
Humidity: Up to 95% @ 55 degrees C.
Shock: Suitable for mobile and portable environments.
Vibration: Suitable for mobile and vehicular environments
Provide product support for 7 years after last unit being purchase from this RFP.

## PRICE SHEETS

Req. Item	Comm. Code	Description	Unit Price
1.		C-AT ICRI with dual talk group capability Product Bid State: Mfg.: Communications-Applied Technology      Model: 500.9260	\$7,500
2.		C-AT ICRI with single talk group capability Product Bid State: Mfg.: Communications-Applied Technology      Model: 500.9250	\$4,500
3.		ICRI Audio buffer/delay for ICRI models 500.9250 and 500.9260 when used with trunked radios Product Bid State: Mfg.: Communications-Applied Technology      C-AT p/n 500.9311	\$250
4.		Battery pack (8 "AA" batteries not provided) Product Bid State: Mfg.: Communications-Applied Technology      C-AT p/n 160.3611	\$75
5.		Adapter/cable for ICRI to 8 "AA" battery pack Product Bid State: Mfg.: Communications-Applied Technology      C-AT p/n 180.0450	\$120
6.		ICRI DC input cable, dual mode Product Bid State: Mfg.: Communications-Applied Technology      C-AT p/n 179.0730	\$75
7.		ICRI 115V AC power supply Product Bid State: Mfg.: Communications-Applied Technology      C-AT p/n 320.0431	\$120
8.		ICRI Waterproof case (based on Pelican 1550) with die-cut foam insert Product Bid State: Mfg.: Communications-Applied Technology      C-AT p/n 990.9602	\$275
9.		ICRI Waterproof case (based on Pelican 1600) with die-cut foam insert Product Bid State: Mfg.: Communications-Applied Technology      C-AT p/n 990.9601	\$300

Req. Item	Comm. Code	Description	Unit Price
10.		ICRI 250' universal audio extension cable on reel Product Bid State: Mfg.: Communications-Applied Technology C-AT p/n 179.6206	\$350
11.		ICRI Handset with P-T-T and coiled cord Product Bid State: Mfg.: Communications-Applied Technology C-AT p/n 280.0125	\$200
12.		Bracket for mounting ICRI in a 19" rack, 2U space required (hardware included) Product Bid State: Mfg.: Communications-Applied Technology C-AT p/n 200.7000	\$175
13.		Cable, ICRI-to-ICRI link to expand # of participants in a talk group, 6' Product Bid State: Mfg.: Communications-Applied Technology C-AT p/n 179.0656	\$60
14.		Cable, acoustic coupler, ICRI-to-cellular phone/Satellite phone/ land-line telephone handsets Product Bid State: Mfg.: Communications-Applied Technology C-AT p/n 179.0655	\$165
15.		Cable, 2.5mm jack, ICRI-to-cell phones & Nextel in telephone mode Product Bid State: Mfg.: Communications-Applied Technology C-AT p/n 179.0672	\$55
16.		Cable, ICRI-to-Nextel i90 and similar models. Nextel operation 2-way radio mode Product Bid State: Mfg.: Communications-Applied Technology C-AT p/n 179.0677	\$150
17.		Cable, ICRI-to-Nextel i1000 and similar models. Nextel operation 2-way radio mode Product Bid State: Mfg.: Communications-Applied Technology C-AT p/n 179.0678	\$110
18.		Cable, universal ICRI-to-portable radio (requires radio speaker-mic assembly to be provided for temporary disassembly) Product Bid State: Mfg.: Communications-Applied Technology C-AT p/n 179.0734	\$70

Req. Item	Comm. Code	Description	Unit Price
19.		Cable, ICRI-to-Bendix King LMH radio Product Bid State: Mfg.: Communications-Applied Technology C-AT p/n 179.0670	\$133
20.		Cable, ICRI-to-Bendix King LPH radio Product Bid State: Mfg.: Communications-Applied Technology C-AT p/n 179.0671	\$133
21.		Cable, ICRI-to-Bendix King EPH radio Product Bid State: Mfg.: Communications-Applied Technology C-AT p/n 179.0673	\$136
22.		Cable, ICRI-to-Ericsson Jaguar (includes in-line amplifier) Product Bid State: Mfg.: Communications-Applied Technology C-AT p/n 179.0733	\$230
23.		Cable, ICRI-to-Ericsson LPE-200 (includes in-line amplifier) Product Bid State: Mfg.: Communications-Applied Technology C-AT p/n 179.0662	\$230
24.		Cable, ICRI-to-Ericsson M-PA (includes in-line amplifier) Product Bid State: Mfg.: Communications-Applied Technology C-AT p/n 179.0660	\$230
25.		Cable, ICRI-to-Ericsson M-RK (includes in-line amplifier) Product Bid State: Mfg.: Communications-Applied Technology C-AT p/n 179.0661	\$230
26.		Cable, ICRI-to-Ericsson Panther 500 & KPC Product Bid State: Mfg.: Communications-Applied Technology C-AT p/n 179.0732	\$230
27.		Cable, ICRI-to-military radio (radios compatible with H-250/U or H-350/U handsets incl. PRC-119/117, MBITR, SINCGARS) Product Bid State: Mfg.: Communications-Applied Technology C-AT p/n 179.0600	\$125
28.		Cable, ICRI-to-military PRC-127 radio Product Bid State: Mfg.: Communications-Applied Technology C-AT p/n 179.0600	\$125

Req. Item	Comm. Code	Description	Unit Price
29.		Cable, ICRI-to-Motorola Jedi Series radios incl. HT-1000, MT-2000, XTS-3000/3500/5000 Product Bid State: Mfg.: Communications-Applied Technology C-AT p/n 179.0630	\$230
30.		Cable, ICRI-to-Motorola radios incl. MT-1000, HT-600, P-200 (Radius) Product Bid State: Mfg.: Communications-Applied Technology C-AT p/n 179.0640	\$230
31.		Cable, ICRI-to-Motorola GP-350 radio Product Bid State: Mfg.: Communications-Applied Technology C-AT p/n 179.6018	\$160
32.		Cable, ICRI-to-Motorola radios incl. GTX, LTS2000, GP300, P1225 (Radius) Product Bid State: Mfg.: Communications-Applied Technology C-AT p/n 179.0634	\$160
33.		Cable, ICRI-to-Motorola radios incl. HT-1250, HT-750 Product Bid State: Mfg.: Communications-Applied Technology C-AT p/n 179.0735	\$160
34.		Cable, ICRI-to-Motorola Saber & AstroSaber Product Bid State: Mfg.: Communications-Applied Technology C-AT p/n 179.0710	\$230
35.		Cable, ICRI-to-radios compatible with Hirose 6-pin connector Product Bid State: Mfg.: Communications-Applied Technology C-AT p/n 179.1910	\$120
36.		Cable, ICRI-to-Kenwood series 280,290,380,390,480 (UHF and VHF) Product Bid State: Mfg.: Communications-Applied Technology C-AT P/N 179.0136	\$160
37.		Cable, ICRI-to-Kenwood series 208,220,240,248,250,260,360 (UHF and VHF) Product Bid State: Mfg.: Communications-Applied Technology C-AT P/N 179.6013	\$160

The volume discount will be cumulative and over the term of the contract.  
(Initial Term of Three [3] Years)

Additional Discount off Net Contract Unit Price	Cumulative Total Sales from:	Cumulative Total Sales to:
25 %	\$ 5,000,000	\$ 9,999,999
25 %	\$ 10,000,000	\$ 14,999,999
25 %	\$ 15,000,000	\$ 19,999,999
25 %	\$ 20,000,000	\$ 29,999,999
25 %	\$ 30,000,000	\$ 39,999,999
25 %	\$ 40,000,000	\$ 49,999,999
25 %	\$ 50,000,000	\$ 59,999,999
25 %	\$ 60,000,000	\$ 69,999,999
25 %	\$ 70,000,000	\$ 79,999,999
25 %	\$ 80,000,000	\$ 89,999,999
25 %	\$ 90,000,000	\$ 99,999,999
25 %	\$100,000,000	\$ 100,000,000+

**Ceragon – Phase I**Contractor: [Ceragon Networks](#)

Contact: Paul Smith

Alternate Contact: Scott Sweetland

Phone: (201) 853-0220

201-853-0226

Fax: 585-720-0718

603-886-8523

Email: [pauls@ceragon.com](mailto:pauls@ceragon.com)[scott@ceragon.com](mailto:scott@ceragon.com)Internet address: [www.ceragon.com](http://www.ceragon.com)

Web catalog address:

Federal ID No.: 22-3642164

Supplier No.: W1919

Total Contract worth:

Payment address: 10 Forest Ave  
Paramus, NJ 07652Order placement 10 Forest Ave  
address: Paramus, NJ 07652

Customer Service: Carmelo Menor

Telephone: 201-853-0257

Fax: 201-845-5665

Ordering procedures:

Credit card acceptance: No

Minimum orders:

Delivery time: 60 Days ARO

Payment terms: Net 30

Shipping destination: Freight on Board (FOB) destination

Freight: Prepaid and included

Palletization:

Corporate Address 10 Forest Avenue, Paramus, NJ 07652 (201) 845-6955

Equipment Line items

Link to bid Specifications

Link to Price Sheets

Cergon 2007 price  
list.xls

Awarded Phase(s) Phase I

CONTRACTOR WAREHOUSE Proposer(s) shall indicate below each warehouse location at which material, equipment or supplies will be stored.

ADDRESS:	<u>Ceragon Networks</u>	PHONE:	<u>(201) 853-0254</u>
	<u>10 Forest Ave, Suite 120</u>	CONTACT:	<u>Raz Koren</u>
	<u>Paramus, NJ 07652</u>		

#### AUTHORIZED RESELLERS OF CERAGON PRODUCTS AND SERVICE

ADDRESS:	<u>HUTTON Communications</u>	PHONE:	<u>(877) 648-8866</u>
	<u>945 Spice Islands, Suite B</u>	CONTACT:	<u></u>
	<u>Sparks, NV 89431</u>		<u></u>

ADDRESS:	<u>GE/MDS</u>	PHONE:	<u>(585)242-8415</u>
	<u>175 Science Parkway</u>	CONTACT:	<u>Charles Miller</u>
	<u>Rochester, NY 14620</u>		<u>charles.miller3@ge.com</u>

ADDRESS	<u>TEMPEST Telecom</u>	PHONE:	<u>Dave Smargon, VP of Supply &amp; Sales Operations</u>
	<u><a href="http://www.tempesttelecom.com">http://www.tempesttelecom.com</a></u>	CONTACT:	<u>(805) 690-3344 x 244</u>
	<u></u>		<u>dsmargon@tempesttelecom.com</u>

SERVICING: Indicate below the names and addresses of sales representatives and specific territories covered. Proposer's ability to service state agencies including local sales representation may be a factor in the award. Contractor must provide immediate attention to problem areas as they arise regardless of location. Submit an attached letter if necessary.

NAME:	<u>Scott Sweetland</u>	NAME:	<u>Paul Smith</u>
ADDRESS:	<u>One Chestnut St., #337</u>	ADDRESS:	<u>125 Bram Hall Drive</u>
	<u>Nashua, NH 03060</u>		<u>Rochester, NY 14Rochester, NY 14626</u>
TERRITORY:	<u>VP Sales, US&amp;Canada, Corporate CVO</u>	TERRITORY:	<u>US Direct Sales</u>
PHONE:	<u>201-853-0226</u>	PHONE:	<u>201-853-0220</u>

#### FACTORY AUTHORIZED SERVICE:

Factory authorized service must be available in the destination area. List your service centers including name and address of each.

FIRM NAME: Ceragon Networks, Inc.  
ADDRESS: 10 Forest Ave, Suite 120  
Paramus, NJ 07652

## Customer Quotation

Quote  
Form\_v4\_10  
1606

Date: October  
27, 2006

Link Description: Itemized Licensed  
Equipment Pricing, FibeAir 1500P

Quote #:  
SAS102706-1

Discount: 35%

Terms: Net 30, subject to credit  
approval (See Note 5 Below)

Delivery Point: Ex-  
Works, Paramus, NJ

Customer Contact & Phone: WSCA  
Contract

Ext. Warranty/Period: |  
N/A

Ceragon Contact & Phone: Paul  
Obert, 603-886-8503

Delivery<sup>2</sup>: 60 days  
ARO

Contractor: [Daniels Electronics, Ltd.](#)

Contact: Douglas Bigrigg

Alternate Contact: Mark Waldie

Phone: 1-800-664-4066

1-800-664-4066

Fax: 1-877-750-0004

1-877-750-0004

Email: [douglas\\_bigrigg@danelec.com](mailto:douglas_bigrigg@danelec.com)[mark\\_waldie@danelec.com](mailto:mark_waldie@danelec.com)

Internet address:

Product catalog address: <http://www.ga.wa.gov/pca/contract/02702-Daniels-Radio-100704.pdf>

Federal ID No.:

Supplier No.: W3347

Total Contract worth:

Payment address: Daniels Electronics Ltd.  
43 Erie Street,  
Victoria, BC, Canada V8V 1P8Order placement address: Daniels Electronics Ltd.  
43 Erie Street,  
Victoria, BC, Canada V8V 1P8

Customer Service: Rich Sanchez

Telephone: 1-800-664-4066

Fax: 1-877-750-0004

Ordering procedures:

Credit card acceptance: VISA, MasterCard

Minimum orders:

Delivery time: 120 Days ARO

Payment terms: 2% Net 20

Shipping destination: Free on Board (FOB) Destination

Freight: Prepaid and included

Palletization:

Category

Equipment Line items

Link to bid Specifications

Link to Price Sheets

Awarded Phase(s) Phase I

**Daniels Electronics**

**SERVICING:** Indicate below the names and addresses of sales representatives and specific territories covered. Proposer's ability to service state agencies including local sales representation may be a factor in the award. Contractor must provide immediate attention to problem areas as they arise regardless of location. Submit an attached letter if necessary.

NAME: Manon Engineering  
ADDRESS: 10605 NE 68th St. Suite 201  
Kirkland, WA 98033  
TERRITORY: AK, WA, OR, ID, HI, MT  
PHONE: (425) 827-7449

NAME: Aurora Marketing  
ADDRESS: 2018 South Pontiac Drive  
Denver, CO 80224  
TERRITORY: MT, ID, WY, UT, CO, NM, TX  
PHONE: (303) 758-3051

NAME: DacoM  
ADDRESS: 6119-A 27th St  
Sacramento, CA 95822  
TERRITORY: Northern CA, Northern NV  
PHONE: (916) 422-3453

NAME: GVT Marketing  
ADDRESS: P.O. Box 390459  
Anza, CA 92539  
TERRITORY: Southern CA, Southern NV, AZ  
PHONE: (909) 763-1001

NAME: Edward J. Gordon  
ADDRESS: 2970 Marine Circle P.O. Box 283  
Stillwater, MN 55082  
TERRITORY: Northern CA, Northern NV  
PHONE: (916) 422-3453

NAME: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_  
\_\_\_\_\_  
TERRITORY: \_\_\_\_\_  
PHONE: \_\_\_\_\_

**FACTORY AUTHORIZED SERVICE:**

Factory authorized service must be available in the destination area. List your service centers including name and address of each.

FIRM NAME: Daniels Electronics Ltd.  
ADDRESS: 43 Erie Street , Victoria, BC  
V8V 1P8 Canada

**Daniels Electronics – Phase I****SERVICE CENTERS**

Daniels Electronics Ltd., 43 Erie Street, Victoria BC, Canada, 1-800-664-4066

Ship to:

Daniels Electronics Ltd.

c/o The Victoria Clipper

2701 Alaskan Way, Pier 69

Seattle, WA 98121

\_ENVTEST AMP Environmental Test of Amplifier \$205.00

\_ENVTEST RECEIVER Environmental Test of Receiver \$150.00

\_ENVTEST TRANSMITTER Environmental Test of Transmitter \$150.00

\_LABOUR-CONFIG Labour/hr. Required for custom radio design \$150.00

\_LABOUR-SERVICE Labour/hr. for repairs, maintenance etc. \$100.00

AC-3E Crossband E&M Control Card \$625.00

AC-CAT-E1 Status Tone Encoder \$150.00

AC-CTCSS-DE1 CTCSS Decoder \$195.00

AC-CTCSS-E1 CTCSS Encoder \$150.00

AC-CTCSS-TDS-1 Module, CTCSS ENC/DEC, Burst, ANI \$195.00

AC-CTCSS-TS-64 Module, CTCSS Encoder/Decoder \$195.00

AC-DCS1 Digitally Coded Squelch \$195.00

AC-DTMF-D2 DTMF Decoder \$230.00

AC-MC1 Morse Code ID Generator \$400.00

AC-RS11 CTCSS Rotary Switch Interface - (Common En/Decode Freq.) \$530.00

Includes CTCSS module, not available on AC-3M-96 or AC-3S-96

AC-RS12 CTCSS Rotary Switch Interface - (Different En/Decode Freq.) \$710.00

Includes CTCSS module, not available on AC-3M-96 or AC-3S-96

AC-SCS-1RS 16 Channel Frequency Select Rotary Switch, 1 Switch \$60.00

AC-SCS-2RS 16 Channel Frequency Select Rotary Switch, 2 Switches \$120.00

A-INTERCON-96 Repeater Interconnect, 96 Pin Aux connector and housing for user-built aux. cables \$50.00

A-MIC-01 Microphone \$140.00

AMP-140-110-D1P AMP, 136-144, 60-110W, 13.8V, Rear \$2,195.00

AMP-140-110-D1R AMP, 136-144, 60-110W, 13.8V, Rack \$2,195.00

AMP-148-110-D1P AMP, 144-152, 60-110W, 13.8V, Rear \$2,195.00

AMP-148-110-D1R AMP, 144-152, 60-110W, 13.8V, Rack \$2,195.00

AMP-157-110-D1P AMP, 152-162, 60-110W, 13.8V, Rear \$2,195.00

AMP-157-110-D1R AMP, 152-162, 60-110W, 13.8V, Rack \$2,195.00

AMP-168-110-D1P AMP, 162-174, 60-110W, 13.8V, Rear \$2,195.00

AMP-168-110-D1R AMP, 162-174, 60-110W, 13.8V, Rack \$2,195.00

AMP-2/1XX-30-00 VHF 30 Watt Power Amplifier \$1,005.00

AMP-2/450-30-00 UHF 30 Watt Power Amplifier \$1,005.00

AMP-P10-2AA1-C1 Power Amplifier, 2 W in/100 W out, 30-36 MHz \$1,445.00

AMP-P10-2AB1-C1 Power Amplifier, 2 W in/ 100 W out, 36-42 MHz \$1,445.00

AMP-P10-2AC1-C1 Power Amplifier, 2 W in/ 100 W out, 42-50 MHz \$1,445.00

AMP-P10-2HA1-C3 Power Amplifier, 2 W in/ 100-150 W out, 450-470 MHz \$2,045.00

AMP-P25-2AA1-C1 AMP, 30-36MHz, 2.5W I/P, 250W O/P \$2,950.00

AMP-P25-2AB1-C1 AMP, 36-42MHz, 2.5W I/P, 250W O/P \$2,950.00

AMP-P25-2AC1-C1 AMP, 42-50MHz, 2.5W I/P, 250W O/P \$2,950.00

AMP-P25-2EA1-C1 AMP, 152-162MHz, 5W I/P, 250W O/P \$2,950.00

Phone: 1-800-664-4066

Fax: 1-877-750-0004

web: [www.danelec.com](http://www.danelec.com)

email: [sales@danelec.com](mailto:sales@danelec.com)

Price Code:

Version:

H1a

2.40

Price List United States Valid From:

**Daniels Electronics**

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Item Number Schedule of Supplies / Services Price

AMP-P25-5EA1-C1 AMP, 152-162MHz, 5W I/P, 250W O/P \$2,950.00

AMP-P9-2K1-C1 Power Amplifier, 2 W in/ 80 W out, 806-870 MHz \$2,375.00

A-PK-GLOBALSTAR Globalstar System Interface Kit \$1,300.00

Includes: telephone interconnect, mounting bracket and connectors

A-PK-IRIDIUM Interface Kit for Iridium System \$4,045.00

Includes: telephone interconnect, extended transportable case and connectors.

A-PK-RX3N214 12.5 KHz modification kit for conversion to narrowband Rx \$210.00

A-PNL-AUX96-3 96 Position Rear Terminal Block, mounted on back panel \$250.00

A-PNL-DUP-02 Tray Panel for Comprod Duplexer \$40.00

A-PNL-SP-01 Speaker Panel, 19" Rack mount, 3 RU height \$245.00

APP-FIRM01-W-XX Firmware (P25 Digital Upgrade), MT-4E Receiver, Ver XX \$1,850.00

APP-FIRM02-W-XX Firmware (P25 Digital Upgrade), MT-4E Transmitter, Ver XX \$2,400.00

APP-RSS03-WC-XX Radio Service Software, RSS4E \$290.00

APP-UIC-4-01 Software, UIC-4 \$0.00

APP-UIC-4-02 Software, UIC-4, Fixed Station Interface \$1,500.00

A-TK-01 Alignment/Maintenance Kit for MT-3 \$55.00

A-TK-04 Alignment/Maintenance Kit, MT-4 \$95.00

CBL223-NXXNXXXX RG223 RF Cable (Type N Bulkhead) \$85.00

CBL223-XPOXPOXX RG223 RF Cable (Type N OR BNC Connector) \$60.00

CBL223-XR0XR0XX RG223 Cable (Type N or BNC Connector) Right angle connection \$70.00

CBLAUX-96-1.22 Auxilliary Control Cable, 1.22 M (4 ft.) \$175.00

CBLC40-01025100 Interconnect Cable, CI-DSP-223, DB-25 to bare wires (For conntection to

A-PNL-AUX96-3)

\$70.00

CBLC41-43525110 Interconnect Cable, CI-DSP-223, DB-25 to 96 pin connector (For connection directly to subrack)

\$115.00

CBLC44-20704305 Cable/USB2.0,A-B(mini)M-M,10ft \$25.00

CBLC46-12506XXX Cable, RJ45 Plug-Plug, 8 position \$25.00

CBLC46-KEYLDR-0 Encryption Key Loader Cable \$105.00

CBLPXX-XXXXXXXX Power Cable for Transportable Case \$80.00

CI-BC-4E-00 Control, P25 Base, Local/REM,E&amp;M \$1,000.00

CI-C-2002HS Radio Control Console, 2 Line \$1,485.00

CI-DSP-223 Tone Remote Adapter \$825.00

Includes: interconnect &amp; programming cables

CI-IP-223 VOIP Remote Adapter \$2,100.00

Includes: interconnect &amp; programming cables

CI-MODEL66 Controller, Transmitter \$2,142.00

CI-PM-3-00 Digital Paging Interface Card \$1,240.00

CI-RC-4L-00 Digital Crossband Low Current Control Card \$625.00

CI-RC-4L-10 Digital Low Current Control Card, NIFC version \$1,215.00

CI-RC-4M-00 Controller/P25 Repeater Master \$2,500.00

CI-RC-4M-01 Controller/P25 Rptr, Package includes E&amp;M Expansion Board and Analog Tone Board

\$3,250.00

Phone: 1-800-664-4066

Fax: 1-877-750-0004

web: www.danelec.com

email: sales@danelec.com

Price Code:

Version:

H1a

2.40

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Item Number Schedule of Supplies / Services Price

CI-RC-4M-EM/EXP Expansion/E&amp;M Board, CI-RC-4M \$500.00

CI-RC-4M-TONE Analog Tone Board, CI-RC-4M \$500.00

CI-RSWITCH-0 Redundant Switch \$1,625.00

CP-SC-3 Synthesizer Channel Programmer \$920.00

**Daniels Electronics**

DUP-132-150JHPN Duplexer, 132-150MHz,100W,2 MHZ \$2,240.00  
DUP-136-174EKP Duplexer,136-174MHZ,50W,4.5MHZ \$650.00  
DUP-136-174TDHN Duplexer, 136-174M,350W,500KHZ \$1,705.00  
DUP-136-174TDRN Duplexer, 136-174M,350W,500KHZ \$2,350.00  
DUP-144-174JHPN Duplexer, 144-174MHz,100W,2 MHZ \$2,240.00  
DUP-350-512EMLB Duplexer, 350-512MHZ,50W,5 MHZ \$600.00  
DUP-406-512LMLN Duplexer,406-512MHZ,125W,5 MHZ \$1,340.00  
DUP-406-512LMRN Duplexer,406-512MHZ,125W,5 MHZ \$1,745.00  
DUP-806-896EYCB Duplexer,806-896MHZ,50W,45 MHZ \$460.00  
DUP-896-960EUPB Duplexer,896-960MHZ,50W,24 MHZ \$460.00  
EC-48RD 48 Pin Extender, Direct connect for use with RF modules or system regulator \$190.00  
EC-48RK-1.22 48 Pin Extender Kit W/ Cable \$375.00  
For RF modules and system regulator  
EC-96D1 96 Pin Extender Card \$115.00  
Direct connect for use with 96 pin audio control cards  
EC-96K-1.22 96 Pin Extender Kit W/ Cable \$520.00  
ENCRYPT-MT4E-XX Encryption for MT-4E RX/TX \$1,740.00  
ES-1-B20-00 Steel freestanding 19" Rack Cabinet, open front and back, 20 RU height \$560.00  
ES-1-B20-D0 Flush mount rack door, with lock for use with 20 RU height cabinet \$190.00  
ES-1-B28-00 Steel freestanding 19" Rack Cabinet, open front and back, 28 RU height \$1,380.00  
ES-1-B28-D0 Flush mount rack door, with lock for use with 28 RU height cabinet \$420.00  
ES-4-D90-01 19" Open Frame Relay Rack, 90" Height \$1,350.00  
ET-1-A06-00 19" PolyethyleneTransportable Case \$3,245.00  
Holds 2 subracks, 6 RU height, shock mounted subrack, water tight lid  
ET-1-A09-00 Transportable Case for 9U Rack \$3,575.00  
ET-3-03-00 Orange 19 "Transportable Case \$2,500.00  
Includes: 2 RF connectors, AC and DC (6 ft. power cables). RF cables sold separately.  
ET-3-03-05 Black 19" Transportable Case, Aluminum \$2,500.00  
Includes: 2 RF connectors, AC and DC (6 ft. power cables). RF cables sold separately.  
ET-4-A09-00 Polyethylene Briefcase \$835.00  
ET-4-A09-01 Briefcase Package incl. Power Module & Accessory Box \$1,900.00  
IM08-MT-4E-TXRX Manual, MT-4E Recevier & Transmitter \$25.00  
IM10-VR3H040 VR-3H040 Synthesized Rx Manual \$25.00  
IM12-001 VR-3A130, AM Rx Manual \$25.00  
IM20-VT3H040 VT-3H040 Synthesized Tx Manual \$25.00  
IM22-001 VT-3A130, AM Synthesized Tx Manual \$25.00  
Phone: 1-800-664-4066  
Fax: 1-877-750-0004  
web: www.danelec.com  
email: sales@danelec.com  
Price Code:  
Version:  
H1a  
2.40  
Price List United States Valid From:  
Page #: 5  
: October 10, 2006  
Item Number Schedule of Supplies / Services Price  
IM31-SM3 System Regulator Manual \$25.00  
IM35-MB84RX Multil Rx Subrack Manual \$25.00  
IM35-MB84TX Multi Tx/Amp Subrack Manual \$25.00  
IM35-SR3MB84 Subrack Manual \$25.00  
IM42-AC3 Audio Control Manual \$25.00  
IM51-CPSC3 Synth Channel Programmer Manual \$25.00  
IM55-002 Manual, P25 Base Control, CI-BC-4E \$25.00  
IM55-003 Redundant Switch Manual \$25.00  
IM55-004 Manual, RC-4M Multi link Controller \$25.00  
IM55-005 Manual, UIC-4, Universal Interface Card \$25.00  
IM55-CIPM3 CI-PM-3 Paging Modulator Manual \$25.00  
IM55-CIRC4L P25 Repeater Controller Manual \$25.00  
IM55-GLOBALSTAR Manual, GLOBALSTAR System \$25.00  
IM71-001 AMP-2/145/155/170/-30 Manual \$25.00

**Daniels Electronics**

IM71-002 Manual, AMP-2/450-30 \$25.00  
IM81-001 PSA-12A09-P0-00 Power Supply Manual \$25.00  
IM81-002 PSA-12A09-PB-00-UB-00 Manual \$25.00  
IM81-PSA12X0 PSA-12-40 & PSA-12-60 Manual \$25.00  
IM81-PSD2 Manual, PSD-2-xx/15 DC/DC cnvtr \$25.00  
IM85-001 Manual, Power Supply for ET-4 \$25.00  
IM85-002 Manual, ET-4-A09-0X Deployment \$25.00  
IM87-BSSP Speaker Panel Base Station Manual \$25.00  
IM87-NCONV Narrowband Conversion Manual \$25.00  
IMXX-XXXXXXX Radio Module Instruction Manual \$25.00  
PSA-12-09-RB-20 Power Supply, 12VDC/9A \$1,300.00  
PSA-12-40-RB-00 Power Supply, 12VDC-40A, Rack Mt \$1,100.00  
PSA-12-60-RB-00 Power Supply, 12VDC-60A, Rack Mt \$1,325.00  
PSA-12A09-PB-00 Power Supply, 12VDC, W/Battery backup \$500.00  
PSA-12A09-UB-00 Power Supply, 12VDC, W/Battery backup \$445.00  
PSBENC-002 Enclosure/Battery, Portable, 12 V, 35 AH \$400.00  
PSB-P-12V10A502 Battery/Lead Acid, 12V, 10.5 Ah \$55.00  
PSD-15-08-P0-80 Converter, DC/DC, 8A, 18-36V \$890.00  
PSD-15-08-P0-90 Converter, DC/DC, 8A, 36-72V I/P \$620.00  
PSS-PS-40W-01 Solar System, Portable, 40 W, Black \$1,650.00  
SA-VIB-22 Anti-Vibration Kit \$80.00  
SM-3-H0-014-00 System Regulator \$605.00  
SM-3-H0-014-05 Audio Module \$600.00  
SM-3-H0-R1N-00 System Regulator, 1 Antenna Relay \$1,105.00  
SM-3-H0-R2N-00 System Regulator, 2 Antenna Relays \$1,605.00  
SR-39-1 Subrack \$780.00  
Phone: 1-800-664-4066  
Fax: 1-877-750-0004  
web: www.danelec.com  
email: sales@danelec.com  
Price Code:  
Version:  
H1a  
2.40  
Price List United States Valid From:  
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SR-39-3 Multi Rx Subrack \$720.00  
SR-39-4 Multi Tx/Amp Subrack \$1,020.00  
TRAINING-01 2-Day Training - Daniels Facility - per Student \$450.00  
Price per student which includes manuals and course material.  
TRAINING-02 2-Day Training - Customer's Facility - 8 Students \$5,500.00  
Includes manuals and course material for up to 8 students. Held at appropriate training facility provided by customer (Within the US, excluding Territories)  
TRAINING-03 2-Day Training - Customer's Facility - Additional Student \$350.00  
Each additional student over 8.  
TRAINING-04 3-Day Training - Daniels Facility - per Student \$550.00  
Includes manuals and course material.  
TRAINING-05 3-Day Training - Customer's Facility - 8 Students \$6,900.00  
Includes manuals and course material for up to 8 students. Held at an appropriate training facility provided by the customer. (Within the US, excluding Territories)  
TRAINING-06 3-Day Training - Customer's Facility - Additional Student \$400.00  
Price per each additional student.  
UIC-4-00 Universal Interface Cntrl, 7HP \$1,500.00  
UR-4E420-00-000 RX, MT-4E Analog Class B, 406-430 MHz \$1,850.00  
UR-4E420-A0-000 RX, MT-4E Analog Class A, 406-430 MHz \$2,050.00  
UR-4E460-00-000 RX, MT-4E Analog Class B, 450-470 MHz \$1,850.00  
UR-4E460-A0-000 RX, MT-4E Analog Class A 450-470 MHz \$2,050.00  
UR-4E500-A0-000 RX, MT-4E Analog Class A, 470-512 MHz \$2,050.00  
UT-4E450-00-800 TX, MT-4E Analog Class A, 406-470 MHz \$1,485.00  
UT-4E500-00-800 TX, MT-4E Analog Class A 470-512 MHz \$1,485.00  
VR-3A130-SYF210 RX, MT-3/AM, 118-137 MHz \$1,705.00  
VR-3AXXX-XXXXXX RX, MT-3/AM \$1,705.00  
VR-3H035-SWA200 RX, MT-3, VHF(030-039MHz) Enhanced \$1,800.00

**Daniels Electronics**

VR-3H045-SWA200 RX, MT-3, VHF(038-050MHz) Enhanced \$1,800.00  
VR-4E150-00-000 RX, MT-4E Analog Class B, 136-174 MHz \$1,600.00  
VR-4E150-A0-000 RX, MT-4E Analog Class A 136-174 MHz \$1,800.00  
VT-3A130-SYF410 TX,MT-3/AM,118-137MHz,3W \$1,790.00  
VT-3AXXX-XXXXXX TX, MT-3 AM \$1,790.00  
VT-3H035-SXA300 TX, MT-3, VHF(030-039), 3W \$1,600.00  
VT-3H045-SXA300 TX, MT-3, VHF(038-050),3W \$1,600.00  
VT-4E150-00-800 TX, MT-4E Analog Class A, 136-174 \$1,485.00

**EF Johnson Company**  
**CONTRACTOR INFORMATION**

Contractor:	<a href="#">EF Johnson Company</a>		
Contact:	Mark W. Morgan	Alternate Contact:	Bob Bushey
Phone:	602-834-0720		425-430-2919
Fax:	602-834-0717		425-430-2916
Email:	<a href="mailto:mmorgan@efjohnson.com">mmorgan@efjohnson.com</a>		<a href="mailto:bbushey@efjohnson.com">bbushey@efjohnson.com</a>
Internet address:	<a href="http://www.efjohnson.com">www.efjohnson.com</a>		
Web catalog address:			
Federal ID No.:	41-0436849		
Supplier No.:	W1270		
Total Contract worth:	\$500,000,000.00		
Payment address:	EFJohnson PO Box 403312 Atlanta, GA 30384-3312	Order placement address:	EFJohnson Attn: Order Admin 1440 Corporate Drive Irving, TX 75038-2401
Customer Service:	Ron Thompson		
Telephone:	972-819-2344		
Fax:	972-819-2307		
Ordering procedures:			
Credit card acceptance:	None		
Minimum orders:			
Currently Installed Systems, upgrade equipment, radio equipment and accessories	20% off Manufacturer List Price		
Support Services	\$125 per hour		
Installation Services	\$125 per hour		
Repair Services	\$125 per hour		
Delivery time:	Negotiated days After Receipt of Order (ARO)		
Payment terms:	0% 30 days		
Shipping destination:	Freight on Board (FOB) destination		
Freight:	Prepaid and included		
Palletization:	N/A		
Category	Category 1		
Equipment Line items			
Link to bid Specifications			
Awarded Phase(s)	Phase I & II		

**EF Johnson Company – Phase II****EF JOHNSON Price Sheet**

ITEM	Mfg Name	Brand/Model#	Total Price
Portable Analog			
High VHF 136-174 Quality Category A	EF Johnson	5212-610-10	\$1,455.30
High VHF 136-174 Quality Category B	EF Johnson	5212-610-10-81	\$1,392.00
UHF 450-470 Quality Category A	EF Johnson	52(2or4)2-410-10	\$1,443.75
UHF 450-470 Quality Category B	EF Johnson	52(2or4)2-410-10-81	\$1,380.00
UHF 450-470 Category D	EF Johnson	52(2or4)2-410-10-80	\$1,300.00
UHF 806-870 Quality Category A	EF Johnson	527B-810-10	\$1,443.75
UHF 806-870 Quality Category B	EF Johnson	527B-810-10-81	\$1,380.00
UHF 806-870 Quality Category C	EF Johnson	527B-810-10-80	\$1,300.00
UHF 806-870 Quality Category D	EF Johnson	527A-810-10	\$1,140.00
Desktop Analog			
UHF 806-870 Quality Category C	EF Johnson	Discontinued	N/A
UHF 806-870 Quality Category D	EF Johnson	Discontinued	N/A
Mobile Analog			
High VHF 136-174 Quality Category B	EF Johnson	5417-11-10-81	\$1,744.00
High VHF 136-174 Category C	EF Johnson	5417-11-10-80	\$1,664.00
High VHF 136-174 Category D	EF Johnson	5417-11-10-80	\$1,664.00
UHF 806-870 Quality Category C	EF Johnson	Discontinued	N/A
UHF 806-870 Quality Category D	EF Johnson	Discontinued	N/A
Portable Digital			
High VHF 136-174 Quality Category A	EF Johnson	5212-610-20-00	\$1,724.80
High VHF 136-174 Quality Category B	EF Johnson	5212-610-20-81	\$1,672.00
High VHF 136-174 Quality Category C	EF Johnson	5212-610-20-80	\$1,592.00
High VHF 136-174 Category D	EF Johnson	5212-610-20-80	\$1,592.00
UHF 450-470 Quality Category A	EF Johnson	52(2or4)2-410-20-00	\$1,713.25
UHF 450-470 Quality Category B	EF Johnson	52(2or4)2-410-20-81	\$1,660.00
UHF 450-470 Quality Category C	EF Johnson	52(2or4)2-410-20-80	\$1,580.00
UHF 450-470 Quality Category D	EF Johnson	52(2or4)2-410-20-80	\$1,580.00
UHF 806-870 Quality Category A	EF Johnson	527B-810-20-00	\$1,713.25
UHF 806-870 Quality Category B	EF Johnson	527B-810-20-81	\$1,660.00
UHF 806-870 Quality Category C	EF Johnson	527B-810-20-80	\$1,580.00
UHF 806-870 Cateogry D	EF Johnson	527A-810-20	\$1,420.00
Desktop Digital			
High VHF 136-174 Quality Category D	EF Johnson	5417-11-20-80	\$2,130.00
UHF 806-870 Quality Category C	EF Johnson	5477-11-20-81	\$2,146.00
UHF 806-870 Quality Category D	EF Johnson	5337-11-20-80	\$2,130.00
Mobile Digital			

**EF Johnson Company – Phase II**

ITEM	Mfg Name	Brand/Model#	Total Price
High VHF 136-174 Quality Category C	EF Johnson	5417-11-20-81	\$1,846.90
High VHF 136-174 Quality Category D	EF Johnson	5417-11-20-80	\$1,822.50
UHF 806-870 Quality Category C	EF Johnson	5477-11-20-81	\$1,846.90
UHF 806-870 Quality Category D	EF Johnson	5477-11-20-80	\$1,822.50
Mobile Trunked Digital			
High VHF 136-174 Quality Category C	EF Johnson	5417-11-25-81	\$2,066.25
High VHF 136-174 Quality Category D	EF Johnson	5417-11-25-80	\$1,991.25
UHF 806-870 Quality Category C	EF Johnson	5477-11-25-81	\$2,066.25
UHF 806-870 Quality Category D	EF Johnson	5477-11-25-80	\$1,991.25
Portable Trunked Digital			
High VHF 136-174 Quality Category B	EF Johnson	5212-610-25-81	\$1,689.95
High VHF 136-174 Quality Category C	EF Johnson	5212-610-25-80	\$1,661.25
High VHF 136-174 Quality Category D	ED Johnson	5212-610-25-80	\$1,661.25
UHF 450-470 Quality Category A	EF Johnson	52(2or4)2-410-25-00	\$1,690.50
UHF 450-470 Quality Category B	EF Johnson	52(2or4)2-410-25-81	\$1,679.00
UHF 450-470 Quality Category C	EF Johnson	52(2or4)2-410-25-80	\$1,650.00
UHF 450-470 Quality Category D	EF Johnson	52(2or4)2-410-25-80	\$1,650.00
UHF 806-870 Quality Category B	EF Johnson	527B-810-25-81	\$1,679.00
UHF 806-870 Quality Category C	EF Johnson	527B-810-25-80	\$1,650.00
UHF 806-870 Quality Category D	EF Johnson	527A-810-25	\$1,500.00

Discount percentage represented by bid prices is		20-35% off of List
Delivery - expressed in days after Receipt of Order		Varies by Order
Warranty Period - in excess of that required by the specifications (in days)		0 days
% Tax required		Varies by State
Components added to the above models to meet required specifications:		None

**EF Johnson Company – Phase II**

Portable Analog

High VHF 136-174 Quality Category A

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	160	512
Operational Bandwidth/Maximum Frequency Separation, MHz	38	Full Bandsplit
Frequency Stability (-30 °C to + 60 °C), PPM	± 2.5	± 2.0
Channel Spacing, kHz	12.5 / 25 / 30	12.5 / 25 / 30
<b>TRANSMITTER</b>		
RF Power Output, Watts	1/5 selectable (Low/High)	1/5 selectable (Low/High)
Radiated Spurious & Harmonic Emission, dB	-66	-75
FM Noise, dB	-45	-45
Audio Distortion, % maximum	3	2
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-119	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-75/-65	-75
Spurious and Image Rejection, dB	-75	-75
Intermodulation, dB	-75	-75
Speaker Audio Output, milliwatts	500	500
Audio Distortion, % maximum	3	2
Static BER sensitivity @ 5% referenced @ 12.5 KHZ		
Price FOB Destination freight prepaid & included in price		\$1,455.30
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		EFJohnson
Prices are based on price list quoted above dated:		02/01/2007

REQUIRED OPTIONS		
Part Number	Description	Price
	Flashing EEPROM	Available
	Provision for Field Software Upgrade	Available
06	Secure Encryption Option	\$440.00
250-5100-235	Battery Charger/Vehicular Battery or Nominal 120 VAC, 60 HZ *	\$80.00
52X(3orC)	Dual Tone Multi Frequency encoder and Key Pad Option	\$160.55
585-5100-122	Leather Carrying Case Option	\$52.50
n/a	RF Power Amplifiers Option	n/a
589-0015-057	External Speaker/Microphone Option	\$97.50
n/a	Paging Decoder Option	n/a
OPTIONAL OPTIONS		
585-5100-260	Vehicular Charger/Console Option	\$96.00
See Attached	See Price Pages attached for complete Accessories and Options	

**EF Johnson Company – Phase II**

Portable Analog

High VHF 136-174 Quality Category B

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	48	256
Operational Bandwidth/Maximum Frequency Separation, MHz	38	Full Bandsplit
Frequency Stability (-30 °C to + 60 °C), PPM	± 2.5	± 2.0
Channel Spacing, kHz	12.5 / 25 / 30	12.5 / 25 / 30
<b>TRANSMITTER</b>		
RF Power Output, Watts	1/5 selectable (Low/High)	1/5 selectable (Low/High)
Radiated Spurious & Harmonic Emission, dB	-65	-75
FM Noise, dB	-45	-45
Audio Distortion, % maximum	3	2
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-119	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-75/-65	-75
Spurious and Image Rejection, dB	-75	-75
Intermodulation, dB	-75	-75
Speaker Audio Output, milliwatts	500	500
Audio Distortion, % maximum	3	2
Static BER sensitivity @ 5% referenced @ 12.5 KHZ	-	
Price FOB Destination freight prepaid & included in price		\$1,392.00
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		EFJohnson
Prices are based on price list quoted above dated:		02/01/2007

REQUIRED OPTIONS		
Part Number	Description	Price
	Flashing EEPROM	Available
	Provision for Field Software Upgrade	Available
06	Secure Encryption Option	\$440.00
250-5100-235	Battery Charger/Vehicular Battery or Nominal 120 VAC, 60 HZ *	\$80.00
52X(3orC)	Dual Tone Multi Frequency encoder and Key Pad Option	\$160.55
585-5100-122	Leather Carrying Case Option	\$52.50
n/a	RF Power Amplifiers Option	n/a
589-0015-057	External Speaker/Microphone Option	\$97.50
n/a	Paging Decoder Option	n/a
OPTIONAL OPTIONS		
585-5100-260	Vehicular Charger/Console Option	\$96.00
See Attached	See Price Pages attached for complete Accessories and Options	

**EF Johnson Company – Phase II**

Portable Analog

UHF 450-470 Quality Category A

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	160	512
Operational Bandwidth/Maximum Frequency Separation, MHz	20	Full Bandsplit
Frequency Stability (-30 °C to + 60 °C), PPM	± 2.5	± 2.0
Channel Spacing, kHz	12.5 / 25	12.5 / 25 / 30
<b>TRANSMITTER</b>		
RF Power Output, Watts	1/4 selectable (Low/High)	1/4 selectable (Low/High)
Radiated Spurious & Harmonic Emission, dB	-65	-75
FM Noise, dB	-45	-45
Audio Distortion, % maximum	3	2
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-119	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-73/-63	-75
Spurious and Image Rejection, dB	-73	-75
Intermodulation, dB	-73	-75
Speaker Audio Output, milliwatts	500	500
Audio Distortion, % maximum	3	2
Static BER sensitivity @ 5% referenced @ 12.5 KHZ	-	
Price FOB Destination freight prepaid & included in price		\$1,443.75
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		EFJohnson
Prices are based on price list quoted above dated:		02/01/2007

REQUIRED OPTIONS		
Part Number	Description	Price
	Flashing EEPROM	Available
	Provision for Field Software Upgrade	Available
06	Secure Encryption Option	\$440.00
250-5100-235	Battery Charger/Vehicular Battery or Nominal 120 VAC, 60 HZ *	\$80.00
52X(3orC)	Dual Tone Multi Frequency encoder and Key Pad Option	\$160.55
585-5100-122	Leather Carrying Case Option	\$52.50
n/a	RF Power Amplifiers Option	n/a
589-0015-057	External Speaker/Microphone Option	\$97.50
n/a	Paging Decoder Option	n/a
OPTIONAL OPTIONS		
585-5100-260	Vehicular Charger/Console Option	\$96.00
See Attached	See Price Pages attached for complete Accessories and Options	

**EF Johnson Company – Phase II**

Portable Analog

UHF 450-470 Quality Category B

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	40	256
Operational Bandwidth/Maximum Frequency Separation, MHz	20	Full Bandsplit
Frequency Stability (-30 °C to + 60 °C), PPM	± 2.5	± 2.0
Channel Spacing, kHz	12.5 / 25	12.5 / 25 / 30
<b>TRANSMITTER</b>		
RF Power Output, Watts	1/4 selectable (Low/High)	1/4 selectable (Low/High)
Radiated Spurious & Harmonic Emission, dB	-65	-75
FM Noise, dB	-45	-45
Audio Distortion, % maximum	3	2
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-119	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-73/-63	-75
Spurious and Image Rejection, dB	-73	-75
Intermodulation, dB	-73	-75
Speaker Audio Output, milliwatts	500	500
Audio Distortion, % maximum	3	2
Static BER sensitivity @ 5% referenced @ 12.5 KHZ	-	
Price FOB Destination freight prepaid & included in price		\$1,380.00
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		EFJohnson
Prices are based on price list quoted above dated:		02/01/2007

REQUIRED OPTIONS		
Part Number	Description	Price
	Flashing EEPROM	Available
	Provision for Field Software Upgrade	Available
06	Secure Encryption Option	\$440.00
250-5100-235	Battery Charger/Vehicular Battery or Nominal 120 VAC, 60 HZ *	\$80.00
52X(3orC)	Dual Tone Multi Frequency encoder and Key Pad Option	\$160.55
585-5100-122	Leather Carrying Case Option	\$52.50
n/a	RF Power Amplifiers Option	n/a
589-0015-057	External Speaker/Microphone Option	\$97.50
n/a	Paging Decoder Option	n/a
OPTIONAL OPTIONS		
585-5100-260	Vehicular Charger/Console Option	\$96.00
See Attached	See Price Pages attached for complete Accessories and Options	

**EF Johnson Company – Phase II**

Portable Analog

UHF 450-470 Quality Category D

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	2	48
Operational Bandwidth/Maximum Frequency Separation, MHz	20	Full Bandsplit
Frequency Stability (-30 °C to + 60 °C), PPM	± 2.5	± 2.0
Channel Spacing, kHz	12.5 / 25	12.5 / 25 / 30
<b>TRANSMITTER</b>		
RF Power Output, Watts	1/4 selectable (Low/High)	1/4 selectable (Low/High)
Radiated Spurious & Harmonic Emission, dB	-60	-75
FM Noise, dB	-40	-45
Audio Distortion, % maximum	5	2
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-116	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-70/-60	-75
Spurious and Image Rejection, dB	-70	-75
Intermodulation, dB	-70	-75
Speaker Audio Output, milliwatts	350	500
Audio Distortion, % maximum	5	2
Static BER sensitivity @ 5% referenced @ 12.5 KHZ	-	
Price FOB Destination freight prepaid & included in price		\$1,300.00
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		EFJohnson
Prices are based on price list quoted above dated:		02/01/2007

**EF Johnson Company – Phase II**

REQUIRED OPTIONS		
Part Number	Description	Price
250-5100-235	Battery Charger/Vehicular Battery or Nominal 120 VAC, 60 HZ *	\$80.00
included	Position Rotary Channel/Mode Select Switch Option	n/c
included	Low Battery Alert Tone Option	n/c
Included	Alphanumeric Display Option	n/c
52X(3orC)	Dual Tone Multi Frequency encoder and Key Pad Option	\$160.55
585-5100-122	Leather Carrying Case Option	\$45.50
589-0015-057	External Speaker/Microphone Option	\$97.50
OPTIONAL OPTIONS		
585-5100-260	Vehicular Charger/Console Option	\$96.00
	Flashing EEPROM	available
	Provision for Field Software Upgrade	available
06	Secure Encryption Option	\$440.00
n/a	RF Power Amplifiers Option	n/a
n/a	Paging Decoder Option	n/a
included	Emergency Button/Switch Option	
included	Programmable Button/Switch Option	
included	Push-to-talk ID Transmission Option	
See Attached	See Price Pages attached form complete Accessories and Options	

**EF Johnson Company – Phase II**

Portable Analog

UHF 806-870 Quality Category A

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	160	512
Operational Bandwidth/Maximum Frequency Separation, MHz	64	Full Bandsplit
Frequency Stability (-30 °C to + 60 °C), PPM	± 1.5	± 2.0
Channel Spacing, kHz	12.5/20/25	12.5 / 25 / 30
<b>TRANSMITTER</b>		
RF Power Output, Watts	1/3 selectable (Low/High)	1/3 selectable (Low/High)
Radiated Spurious & Harmonic Emission, dB	-48	-75
FM Noise, dB	-40	-40
Audio Distortion, % maximum	3	2
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-119	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-72/-63	-75
Spurious and Image Rejection, dB	-75	-75
Intermodulation, dB	-72	-75
Speaker Audio Output, milliwatts	500	500
Audio Distortion, % maximum	3	2
Static BER sensitivity @ 5% referenced @ 12.5 KHZ	-	
Price FOB Destination freight prepaid & included in price		\$1,443.75
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		EFJohnson
Prices are based on price list quoted above dated:		02/01/2007

REQUIRED OPTIONS		
Part Number	Description	Price
	Flashing EEPROM	Available
	Provision for Field Software Upgrade	Available
06	Secure Encryption Option	\$440.00
250-5100-235	Battery Charger/Vehicular Battery or Nominal 120 VAC, 60 HZ *	\$80.00
52X(3orC)	Dual Tone Multi Frequency encoder and Key Pad Option	\$160.55
585-5100-122	Leather Carrying Case Option	\$52.50
n/a	RF Power Amplifiers Option	n/a
589-0015-057	External Speaker/Microphone Option	\$97.50
n/a	Paging Decoder Option	n/a
OPTIONAL OPTIONS		
585-5100-260	Vehicular Charger/Console Option	\$96.00
See Attached	See Price Pages attached for complete Accessories and Options	

**EF Johnson Company – Phase II**

Portable Analog

UHF 806-870 Quality Category B

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	48	256
Operational Bandwidth/Maximum Frequency Separation, MHz	64	Full Bandsplit
Frequency Stability (-30 °C to + 60 °C), PPM	± 1.5	± 2.0
Channel Spacing, kHz	12.5/20/25	12.5 / 25 / 30
<b>TRANSMITTER</b>		
RF Power Output, Watts	1/3 selectable (Low/High)	1/3 selectable (Low/High)
Radiated Spurious & Harmonic Emission, dB	-48	-75
FM Noise, dB	-40	-40
Audio Distortion, % maximum	3	2
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-119	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-72/-63	-75
Spurious and Image Rejection, dB	-75	-75
Intermodulation, dB	-72	-75
Speaker Audio Output, milliwatts	500	500
Audio Distortion, % maximum	3	2
Static BER sensitivity @ 5% referenced @ 12.5 KHZ		
Price FOB Destination freight prepaid & included in price		\$1,380.00
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		EFJohnson
Prices are based on price list quoted above dated:		02/01/2007

REQUIRED OPTIONS		
Part Number	Description	Price
	Flashing EEPROM	Available
	Provision for Field Software Upgrade	Available
06	Secure Encryption Option	\$440.00
250-05100-235	Battery Charger/Vehicular Battery or Nominal 120 VAC, 60 HZ *	\$80.00
52X(3orC)	Dual Tone Multi Frequency encoder and Key Pad Option	\$160.55
585-5100-122	Leather Carrying Case Option	\$52.50
n/a	RF Power Amplifiers Option	n/a
589-0015-057	External Speaker/Microphone Option	\$97.50
n/a	Paging Decoder Option	n/a
OPTIONAL OPTIONS		
585-5100-260	Vehicular Charger/Console Option	\$96.00
See Attached	See Price Pages attached for complete Accessories and Options	

**EF Johnson Company – Phase II**

Portable Analog

UHF 806-870 Quality Category C

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	14	48
Operational Bandwidth/Maximum Frequency Separation, MHz	64	Full Bandsplit
Frequency Stability (-30 °C to + 60 °C), PPM	± 2.5	± 2.0
Channel Spacing, kHz	12.5/20/25	12.5 / 25 / 30
<b>TRANSMITTER</b>		
RF Power Output, Watts	1/3 selectable (Low/High)	1/3 selectable (Low/High)
Radiated Spurious & Harmonic Emission, dB	-45	-75
FM Noise, dB	-40	-40
Audio Distortion, % maximum	5	2
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-116	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-70/-63	-75
Spurious and Image Rejection, dB	-70	-75
Intermodulation, dB	-70	-75
Speaker Audio Output, milliwatts	350	500
Audio Distortion, % maximum	5	2
Static BER sensitivity @ 5% referenced @ 12.5 KHZ		
Price FOB Destination freight prepaid & included in price		\$1,300.00
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		EFJohnson
Prices are based on price list quoted above dated:		02/01/2007

**EF Johnson Company – Phase II**

REQUIRED OPTIONS		
Part Number	Description	Price
250-5100-235	Battery Charger/Vehicular Battery or Nominal 120 VAC, 60 HZ *	\$80.00
included	Position Rotary Channel/Mode Select Switch Option	
included	Low Battery Alert Tone Option	
n/a	Alphanumeric Display Option	n/a
n/a	Dual Tone Multi Frequency encoder and Key Pad Option	n/a
585-5100-122	Leather Carrying Case Option	\$52.50
589-0015-057	External Speaker/Microphone Option	\$97.50
OPTIONAL OPTIONS		
585-5100-260	Vehicular Charger/Console Option	\$96.00
	Flashing EEPROM	Available
	Provision for Field Software Upgrade	Available
06	Secure Encryption Option	\$440.00
n/a	RF Power Amplifiers Option	n/a
n/a	Paging Decoder Option	n/a
included	Emergency Button/Switch Option	
included	Programmable Button/Switch Option	
included	Push-to-talk ID Transmission Option	
See Attached	See Price Pages attached for complete Accessories and Options	

**EF Johnson Company – Phase II**

Portable Analog

UHF 806-870 Quality Category D

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	2	48
Operational Bandwidth/Maximum Frequency Separation, MHz	64	Full Bandsplit
Frequency Stability (-30 °C to + 60 °C), PPM	± 2.5	± 2.0
Channel Spacing, kHz	12.5/20/25	12.5 / 25 / 30
<b>TRANSMITTER</b>		
RF Power Output, Watts	1/3 selectable (Low/High)	1/3 selectable (Low/High)
Radiated Spurious & Harmonic Emission, dB	-45	-75
FM Noise, dB	-40	-40
Audio Distortion, % maximum	5	2
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-116	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-70/-63	-75
Spurious and Image Rejection, dB	-70	-75
Intermodulation, dB	-70	-75
Speaker Audio Output, milliwatts	350	500
Audio Distortion, % maximum	5	2
Static BER sensitivity @ 5% referenced @ 12.5 KHZ	-	
Price FOB Destination freight prepaid & included in price		\$1,140.00
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		EFJohnson
Prices are based on price list quoted above dated:		02/01/2007

**EF Johnson Company – Phase II**

REQUIRED OPTIONS		
Part Number	Description	Price
250-5100-235	Battery Charger/Vehicular Battery or Nominal 120 VAC, 60 HZ *	\$80.00
included	Position Rotary Channel/Mode Select Switch Option	
included	Low Battery Alert Tone Option	
n/a	Alphanumeric Display Option	n/a
n/a	Dual Tone Multi Frequency encoder and Key Pad Option	n/a
585-5100-122	Leather Carrying Case Option	\$52.50
589-0015-057	External Speaker/Microphone Option	\$97.50
OPTIONAL OPTIONS		
585-5100-260	Vehicular Charger/Console Option	\$96.00
	Flashing EEPROM	Available
	Provision for Field Software Upgrade	Available
06	Secure Encryption Option	\$440.00
n/a	RF Power Amplifiers Option	n/a
n/a	Paging Decoder Option	n/a
included	Emergency Button/Switch Option	
included	Programmable Button/Switch Option	
included	Push-to-talk ID Transmission Option	
See Attached	See Price Pages attached for complete Accessories and Options	

**EF Johnson Company – Phase II**

Desktop Analog

UHF 806-870 Quality Category C

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	32	n/a
Operational Bandwidth/Maximum Frequency Separation, MHz	64	n/a
Frequency Stability (-30 °C to + 60 °C), PPM	2.5	n/a
Channel Spacing, kHz	12.5 / 25	n/a
RF Input/Output Impedance, Ohms	50	n/a
<b>TRANSMITTER</b>		n/a
RF Power Output, Watts	35	n/a
Radiated Spurious & Harmonic Emission, dB	-60	n/a
FM Noise, dB	-35	n/a
Audio Distortion, % maximum	5	n/a
Audio Response (per TIA/EIA 603)	+1, -3	n/a
<b>RECEIVER</b>		n/a
Sensitivity, EIA 12 dB Sinad, dBm	-115	n/a
Selectivity, adj. channel (dB), 25/12.5 kHz	-70/-65	n/a
Spurious and Image Rejection, dB	-70	n/a
Intermodulation, dB	-68	n/a
Speaker Audio Output, watts	3	n/a
Audio Distortion, % maximum	5	n/a
Static BER sensitivity @ 5% referenced @ 12.5 KHZ, dBm	-	n/a
Price FOB Destination freight prepaid & included in price		n/a
<b>OTHER INFORMATION:</b>		n/a
Prices are based on Manufacturer's price list entitled:		n/a
Prices are based on price list quoted above dated:		n/a

OPTIONAL OPTIONS		
Part Number	Description	Price
n/a	Flashing EEPROM	n/a
n/a	Provision for Field Software Upgrade	n/a
n/a	Secure Encryption Option	n/a
n/a	See Price Pages attached for complete Accessories and Options	n/a

**EF Johnson Company – Phase II**

Desktop Analog

UHF 806-870 Quality Category D

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	16	n/a
Operational Bandwidth/Maximum Frequency Separation, MHz	64	n/a
Frequency Stability (-30 °C to + 60 °C), PPM	2.5	n/a
Channel Spacing, kHz	12.5 / 25	n/a
RF Input/Output Impedance, Ohms	50	n/a
<b>TRANSMITTER</b>		n/a
RF Power Output, Watts	15	n/a
Radiated Spurious & Harmonic Emission, dB	-55	n/a
FM Noise, dB	-35	n/a
Audio Distortion, % maximum	5	n/a
Audio Response (per TIA/EIA 603)	+1, -3	n/a
<b>RECEIVER</b>		n/a
Sensitivity, EIA 12 dB Sinad, dBm	-115	n/a
Selectivity, adj. channel (dB), 25/12.5 kHz	-70/-65	n/a
Spurious and Image Rejection, dB	-70	n/a
Intermodulation, dB	-68	n/a
Speaker Audio Output, watts	3	n/a
Audio Distortion, % maximum	5	n/a
Static BER sensitivity @ 5% referenced @ 12.5 KHZ, dBm	-	n/a
Price FOB Destination freight prepaid & included in price		n/a
<b>OTHER INFORMATION:</b>		n/a
Prices are based on Manufacturer's price list entitled:		n/a
Prices are based on price list quoted above dated:		n/a

OPTIONAL OPTIONS		
Part Number	Description	Price
n/a	Flashing EEPROM	n/a
n/a	Provision for Field Software Upgrade	n/a
n/a	Secure Encryption Option	n/a
n/a	See Price Pages attached for complete Accessories and Options	n/a

**EF Johnson Company – Phase II**

Mobile Analog

High VHF 136-174 Quality Category B

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	160	256
Operational Bandwidth/Maximum Frequency Separation, MHz	38	Full Bandsplit
Frequency Stability (-30 °C to + 60 °C), PPM	2.5	2.0
Channel Spacing, kHz	12.5 / 25 / 30	12.5 / 25 / 30
RF Input/Output Impedance, Ohms	50	50
<b>TRANSMITTER</b>		
RF Power Output, Watts	50	50
Radiated Spurious & Harmonic Emission, dB	-70	-75
FM Noise, dB	-40	-45
Audio Distortion, % maximum	3	2
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-116	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-75/-65	-75
Spurious and Image Rejection, dB	-75	-75
Intermodulation, dB	-75	-75
Speaker Audio Output, watts	5	5
Audio Distortion, % maximum	3	3
Static BER sensitivity @ 5% referenced @ 12.5 KHZ, dBm		
Price FOB Destination freight prepaid & included in price		\$1,744.00
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		EFJohnson
Prices are based on price list quoted above dated:		02/01/2007

REQUIRED OPTIONS		
Part Number	Description	Price
	Flashing EEPROM	available
	Provision for Field Software Upgrade	available
05	Secure Encryption Option	\$440.00
250-4001-202	Desktop/Mobile Conversion Option	\$236.00
OPTIONAL OPTIONS		
n/a	Second Programmable Receiver with Separate Speaker	
See Attached	See Price Pages attached for complete Accessories and Options	

**EF Johnson Company – Phase II**

Mobile Analog

High VHF 136-174 Quality Category C

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	32	48
Operational Bandwidth/Maximum Frequency Separation, MHz	38	Full Bandsplit
Frequency Stability (-30 °C to + 60 °C), PPM	2.5	2.0
Channel Spacing, kHz	12.5 / 25 / 30	12.5 / 25 / 30
RF Input/Output Impedance, Ohms	50	50
<b>TRANSMITTER</b>		
RF Power Output, Watts	40	50
Radiated Spurious & Harmonic Emission, dB	-60	-75
FM Noise, dB	-45	-45
Audio Distortion, % maximum	5	2
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-116	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-70/-65	-75
Spurious and Image Rejection, dB	-70	-75
Intermodulation, dB	-70	-75
Speaker Audio Output, watts	3	5
Audio Distortion, % maximum	5	3
Static BER sensitivity @ 5% referenced @ 12.5 KHZ, dBm	-	
Price FOB Destination freight prepaid & included in price		\$1,664.00
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		EFJohnson
Prices are based on price list quoted above dated:		02/01/2007

REQUIRED OPTIONS		
Part Number	Description	Price
	Separate Data Connector Option	available
250-4001-202	Desktop/Mobile Conversion Option	\$236.00
included	Alphanumeric Display Option	-
OPTIONAL OPTIONS		
included	Single Unit Dash Mount Option	-
n/a	Second Programmable Receiver with Separate Speaker	n/a
	Flashing EEPROM	available
	Provision for Field Software Upgrade	available
05	Secure Encryption Option	\$440.00
included	Emergency Button/Switch Option	-
included	Programmable Button/Switch Option	-
included	Push-to-talk ID Transmission Option	-
See Attached	See Price Pages attached for complete Accessories and Options	

**EF Johnson Company – Phase II**

Mobile Analog

High VHF 136-174 Quality Category D

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	16	48
Operational Bandwidth/Maximum Frequency Separation, MHz	38	Full Bandsplit
Frequency Stability (-30 °C to + 60 °C), PPM	2.5	2.0
Channel Spacing, kHz	12.5 / 25 / 30	12.5 / 25 / 30
RF Input/Output Impedance, Ohms	50	50
<b>TRANSMITTER</b>		
RF Power Output, Watts	25	50
Radiated Spurious & Harmonic Emission, dB	-55	-75
FM Noise, dB	-45	-45
Audio Distortion, % maximum	5	2
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-116	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-70/-65	-75
Spurious and Image Rejection, dB	-70	-75
Intermodulation, dB	-70	-75
Speaker Audio Output, watts	3	5
Audio Distortion, % maximum	5	3
Static BER sensitivity @ 5% referenced @ 12.5 KHZ, dBm	-	
Price FOB Destination freight prepaid & included in price		\$1,664.00
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		EFJohnson
Prices are based on price list quoted above dated:		02/01/2007

REQUIRED OPTIONS		
Part Number	Description	Price
	Separate Data Connector Option	available
250-4001-202	Desktop/Mobile Conversion Option	\$236.00
OPTIONAL OPTIONS		
included	Single Unit Dash Mount Option	-
n/a	Second Programmable Receiver with Separate Speaker	n/a
	Flashing EEPROM	available
	Provision for Field Software Upgrade	available
05	Secure Encryption Option	\$440.00
included	Emergency Button/Switch Option	-
included	Programmable Button/Switch Option	-
included	Push-to-talk ID Transmission Option	-
included	Alphanumeric Display Option	-
See Attached	See Price Pages attached for complete Accessories and Options	

**EF Johnson Company – Phase II**

Mobile Analog

UHF 806-870 Quality Category C

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	32	n/a
Operational Bandwidth/Maximum Frequency Separation, MHz	64	n/a
Frequency Stability (-30 °C to + 60 °C), PPM	2.5	n/a
Channel Spacing, kHz	12.5 / 25	n/a
RF Input/Output Impedance, Ohms	50	n/a
<b>TRANSMITTER</b>		n/a
RF Power Output, Watts	35	n/a
Radiated Spurious & Harmonic Emission, dB	-60	n/a
FM Noise, dB	-35	n/a
Audio Distortion, % maximum	5	n/a
Audio Response (per TIA/EIA 603)	+1, -3	n/a
<b>RECEIVER</b>		n/a
Sensitivity, EIA 12 dB Sinad, dBm	-116	n/a
Selectivity, adj. channel (dB), 25/12.5 kHz	-70/-65	n/a
Spurious and Image Rejection, dB	-70	n/a
Intermodulation, dB	-68	n/a
Speaker Audio Output, watts	3	n/a
Audio Distortion, % maximum	5	n/a
Static BER sensitivity @ 5% referenced @ 12.5 KHZ, dBm	-	n/a
Price FOB Destination freight prepaid & included in price		n/a
<b>OTHER INFORMATION:</b>		n/a
Prices are based on Manufacturer's price list entitled:		n/a
Prices are based on price list quoted above dated:		n/a

REQUIRED OPTIONS		
Part Number	Description	Price
n/a	Separate Data Connector Option	n/a
n/a	Desktop/Mobile Conversion Option	n/a
n/a	Alphanumeric Display Option	n/a
OPTIONAL OPTIONS		
n/a	Single Unit Dash Mount Option	n/a
n/a	Second Programmable Receiver with Separate Speaker	n/a
n/a	Flashing EEPROM	n/a
n/a	Provision for Field Software Upgrade	n/a
n/a	Secure Encryption Option	n/a
n/a	Emergency Button/Switch Option	n/a
n/a	Programmable Button/Switch Option	n/a
n/a	Push-to-talk ID Transmission Option	n/a
n/a	See Price Pages attached for complete Accessories and Options	n/a

**EF Johnson Company – Phase II**

Mobile Analog

UHF 806-870 Quality Category D

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	16	n/a
Operational Bandwidth/Maximum Frequency Separation, MHz	64	n/a
Frequency Stability (-30 °C to + 60 °C), PPM	2.5	n/a
Channel Spacing, kHz	12.5 / 25	n/a
RF Input/Output Impedance, Ohms	50	n/a
<b>TRANSMITTER</b>		n/a
RF Power Output, Watts	15	n/a
Radiated Spurious & Harmonic Emission, dB	-55	n/a
FM Noise, dB	-35	n/a
Audio Distortion, % maximum	5	n/a
Audio Response (per TIA/EIA 603)	+1, -3	n/a
<b>RECEIVER</b>		n/a
Sensitivity, EIA 12 dB Sinad, dBm	-115	n/a
Selectivity, adj. channel (dB), 25/12.5 kHz	-70/-65	n/a
Spurious and Image Rejection, dB	-70	n/a
Intermodulation, dB	-68	n/a
Speaker Audio Output, watts	3	n/a
Audio Distortion, % maximum	5	n/a
Static BER sensitivity @ 5% referenced @ 12.5 KHZ, dBm	-	n/a
Price FOB Destination freight prepaid & included in price		n/a
<b>OTHER INFORMATION:</b>		n/a
Prices are based on Manufacturer's price list entitled:		n/a
Prices are based on price list quoted above dated:		n/a

REQUIRED OPTIONS		
Part Number	Description	Price
n/a	Separate Data Connector Option	n/a
n/a	Desktop/Mobile Conversion Option	n/a
OPTIONAL OPTIONS		
n/a	Single Unit Dash Mount Option	
n/a	Second Programmable Receiver with Separate Speaker	n/a
n/a	Flashing EEPROM	n/a
n/a	Provision for Field Software Upgrade	n/a
n/a	Secure Encryption Option	n/a
n/a	Emergency Button/Switch Option	n/a
n/a	Programmable Button/Switch Option	n/a
n/a	Push-to-talk ID Transmission Option	n/a
n/a	Alphanumeric Display Option	n/a
n/a	See Price Pages attached for complete Accessories and Options	n/a

**EF Johnson Company – Phase II**

Portable Digital

High VHF 136-174 Quality Category A

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	160	512
Operational Bandwidth/Maximum Frequency Separation, MHz	38	Full Bandsplit
Frequency Stability (-30 °C to + 60 °C), PPM	± 2.5	± 2.0
Channel Spacing, kHz	12.5 / 25 / 30	12.5 / 25 / 30
<b>TRANSMITTER</b>		
RF Power Output, Watts	1/5 selectable (Low/High)	1/5 selectable (Low/High)
Radiated Spurious & Harmonic Emission, dB	-70	-75
FM Noise, dB	-45	-45
Audio Distortion, % maximum	2	2
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-119	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-75/-67	-75
Spurious and Image Rejection, dB	-75	-75
Intermodulation, dB	-75	-75
Speaker Audio Output, milliwatts	500	500
Audio Distortion, % maximum	2	2
Static BER sensitivity @ 5% referenced @ 12.5 KHZ, dBm	-119	-119
Price FOB Destination freight prepaid & included in price		\$1,724.80
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		EFJohnson
Prices are based on price list quoted above dated:		02/01/2007

REQUIRED OPTIONS		
Part Number	Description	Price
250-5100-235	Battery Charger/Dual Power Option	\$80.00
52X(3orC)	Dual Tone Multi Frequency encoder and Key Pad Option	\$160.55
585-5100-122	Leather Carrying Case Option	\$52.50
n/a	RF Power Amplifiers Option	n/a
589-0015-057	External Speaker/Microphone Option	\$97.80
n/a	Paging Decoder Option	n/a
OPTIONAL OPTIONS		
585-5100-260	Vehicular Charger/Console Option	\$96.00
See Attached	See Price Pages attached for complete Accessories and Options	

**EF Johnson Company – Phase II**

## Portable Digital

## High VHF 136-174 Quality Category B

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	48	256
Operational Bandwidth/Maximum Frequency Separation, MHz	38	Full Bandsplit
Frequency Stability (-30 °C to + 60 °C), PPM	± 2.5	± 2.0
Channel Spacing, kHz	12.5 / 25 / 30	12.5 / 25 / 30
<b>TRANSMITTER</b>		
RF Power Output, Watts	1/5 selectable (Low/High)	1/5 selectable (Low/High)
Radiated Spurious & Harmonic Emission, dB	-70	-75
FM Noise, dB	-45	-45
Audio Distortion, % maximum	2	2
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-119	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-75/-67	-75
Spurious and Image Rejection, dB	-75	-75
Intermodulation, dB	-75	-75
Speaker Audio Output, milliwatts	500	500
Audio Distortion, % maximum	2	2
Static BER sensitivity @ 5% referenced @ 12.5 KHZ, dBm	-119	-119
Price FOB Destination freight prepaid & included in price		\$1,672.00
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		EFJohnson
Prices are based on price list quoted above dated:		02/01/2007

REQUIRED OPTIONS		
Part Number	Description	Price
250-5100-235	Battery Charger/Dual Power Option	\$80.00
52X(3orC)	Dual Tone Multi Frequency encoder and Key Pad Option	\$160.55
585-5100-122	Leather Carrying Case Option	\$52.50
n/a	RF Power Amplifiers Option	n/a
589-0015-057	External Speaker/Microphone Option	\$97.50
n/a	Paging Decoder Option	n/a
OPTIONAL OPTIONS		
585-5100-260	Vehicular Charger/Console Option	\$96.00
See Attached	See Price Pages attached for complete Accessories and Options	

**EF Johnson Company – Phase II**

Portable Digital

High VHF 136-174 Quality Category C

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	14	48
Operational Bandwidth/Maximum Frequency Separation, MHz	38	Full Bandsplit
Frequency Stability (-30 °C to + 60 °C), PPM	± 2.5	± 2.0
Channel Spacing, kHz	12.5 / 25 / 30	12.5 / 25 / 30
<b>TRANSMITTER</b>		
RF Power Output, Watts	1/5 selectable (Low/High)	1/5 selectable (Low/High)
Radiated Spurious & Harmonic Emission, dB	-60	-75
FM Noise, dB	-43	-45
Audio Distortion, % maximum	3	2
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-116	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-70/-60	-75
Spurious and Image Rejection, dB	-70	-75
Intermodulation, dB	-70	-75
Speaker Audio Output, milliwatts	350	500
Audio Distortion, % maximum	5	2
Static BER sensitivity @ 5% referenced @ 12.5 KHZ, dBm	-116	-119
Price FOB Destination freight prepaid & included in price		\$1,592.00
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		EFJohnson
Prices are based on price list quoted above dated:		02/01/2007

REQUIRED OPTIONS		
Part Number	Description	Price
250-5100-235	Battery Charger/Dual Power Option	\$80.00
included	Emergency Button Option	
included	Position Rotary Channel/Mode Select Switch Option	
included	Low Battery Alert Tone Option	
included	Programmable Button Option	
included	Push-to-talk ID Transmission Option	
included	Alphanumeric Display Option	
included	Adaptive Transmitter Power Control Option	
52X(3orC)	Dual Tone Multi Frequency encoder and Key Pad Option	\$160.55
585-5100-122	Leather Carrying Case Option	\$52.50
589-0015-057	External Speaker/Microphone Option	\$97.50
OPTIONAL OPTIONS		
n/a	RF Power Amplifiers Option	n/a
n/a	Paging Decoder Option	n/a
585-5100-260	Vehicular Charger/Console Option	\$96.00

**EF Johnson Company – Phase II**

Portable Digital

High VHF 136-174 Quality Category D

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	2	48
Operational Bandwidth/Maximum Frequency Separation, MHz	38	Full Bandsplit
Frequency Stability (-30 °C to + 60 °C), PPM	± 2.5	± 2.0
Channel Spacing, kHz	12.5 / 25 / 30	12.5 / 25 / 30
<b>TRANSMITTER</b>		
RF Power Output, Watts	1/5 selectable (Low/High)	1/5 selectable (Low/High)
Radiated Spurious & Harmonic Emission, dB	-57	-75
FM Noise, dB	-40	-45
Audio Distortion, % maximum	5	2
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-116	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-70/-60	-75
Spurious and Image Rejection, dB	-70	-75
Intermodulation, dB	-60	-75
Speaker Audio Output, milliwatts	350	500
Audio Distortion, % maximum	5	2
Static BER sensitivity @ 5% referenced @ 12.5 KHZ, dBm	-116	-119
Price FOB Destination freight prepaid & included in price		\$1,592.00
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		EFJohnson
Prices are based on price list quoted above dated:		02/01/2007

REQUIRED OPTIONS		
Part Number	Description	Price
250-5100-235	Battery Charger/Dual Power Option	\$80.00
included	Emergency Button Option	-
included	Position Rotary Channel/Mode Select Switch Option	-
included	Low Battery Alert Tone Option	-
included	Programmable Button Option	-
included	Push-to-talk ID Transmission Option	-
included	Alphanumeric Display Option	-
included	Adaptive Transmitter Power Control Option	-
52X(3orC)	Dual Tone Multi Frequency encoder and Key Pad Option	\$160.55
585-5100-122	Leather Carrying Case Option	\$52.50
589-0015-057	External Speaker/Microphone Option	\$97.50
OPTIONAL OPTIONS		
n/a	RF Power Amplifiers Option	n/a
n/a	Paging Decoder Option	n/a
585-5100-260	Vehicular Charger/Console Option	\$96.00

**EF Johnson Company – Phase II**

Portable Digital

UHF 450-470 Quality Category A

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	160	512
Operational Bandwidth/Maximum Frequency Separation, MHz	20	Full Bandsplit
Frequency Stability (-30 °C to + 60 °C), PPM	2	± 2.0
Channel Spacing, kHz	12.5/20/25	12.5 / 25 / 30
<b>TRANSMITTER</b>		
RF Power Output, Watts	1/4 selectable (Low/High)	1/4 selectable (Low/High)
Radiated Spurious & Harmonic Emission, dB	-70	-75
FM Noise, dB	-45	-45
Audio Distortion, % maximum	2	2
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-119	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-75/-68	-75
Spurious and Image Rejection, dB	-75	-75
Intermodulation, dB	-75	-75
Speaker Audio Output, milliwatts	500	500
Audio Distortion, % maximum	2	2
Static BER sensitivity @ 5% referenced @ 12.5 KHZ	-119	-119
Price FOB Destination freight prepaid & included in price		\$1,713.25
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		EFJohnson
Prices are based on price list quoted above dated:		02/01/2007

REQUIRED OPTIONS		
Part Number	Description	Price
250-5100-235	Battery Charger/Dual Power Option	\$80.00
52X(3orC)	Dual Tone Multi Frequency encoder and Key Pad Option	\$160.55
585-5100-122	Leather Carrying Case Option	\$52.50
n/a	RF Power Amplifiers Option	n/a
5890015-057	External Speaker/Microphone Option	\$97.50
n/a	Paging Decoder Option	n/a
OPTIONAL OPTIONS		
585-5100-260	Vehicular Charger/Console Option	\$96.00
See Attached	See Price Pages attached for complete Accessories and Options	

**EF Johnson Company – Phase II**

Portable Digital

UHF 450-470 Quality Category B

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	40	256
Operational Bandwidth/Maximum Frequency Separation, MHz	20	Full Bandsplit
Frequency Stability (-30 °C to + 60 °C), PPM	2	± 2.0
Channel Spacing, kHz	12.5/20/25	12.5 / 25 / 30
<b>TRANSMITTER</b>		
RF Power Output, Watts	1/4 selectable (Low/High)	1/4 selectable (Low/High)
Radiated Spurious & Harmonic Emission, dB	-70	-75
FM Noise, dB	-45	-45
Audio Distortion, % maximum	2	2
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-119	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-75/-68	-75
Spurious and Image Rejection, dB	-75	-75
Intermodulation, dB	-75	-75
Speaker Audio Output, milliwatts	500	500
Audio Distortion, % maximum	2	2
Static BER sensitivity @ 5% referenced @ 12.5 KHZ	-119	-119
Price FOB Destination freight prepaid & included in price		\$1,660.00
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		EFJohnson
Prices are based on price list quoted above dated:		02/01/2007

REQUIRED OPTIONS		
Part Number	Description	Price
250-5100-235	Battery Charger/Vehicular Battery or Nominal 120 VAC, 60 HZ*	\$80.00
52X(3orC)	Dual Tone Multi Frequency encoder and Key Pad Option	\$160.55
585-5100-122	Leather Carrying Case Option	\$52.50
n/a	RF Power Amplifiers Option	n/a
589-0015-057	External Speaker/Microphone Option	\$97.50
n/a	Paging Decoder Option	n/a
OPTIONAL OPTIONS		
585-5100-260	Vehicular Charger/Console Option	\$96.00
See Attached	See Price Pages attached for complete Accessories and Options	

**EF Johnson Company – Phase II**

Portable Digital

UHF 450-470 Quality Category C

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	14	48
Operational Bandwidth/Maximum Frequency Separation, MHz	20	Full Bandsplit
Frequency Stability (-30 °C to + 60 °C), PPM	5	± 2.0
Channel Spacing, kHz	12.5/20/25	12.5 / 25 / 30
<b>TRANSMITTER</b>		
RF Power Output, Watts	1/4 selectable (Low/High)	1/4 selectable (Low/High)
Radiated Spurious & Harmonic Emission, dB	-60	-75
FM Noise, dB	-43	-45
Audio Distortion, % maximum	5	2
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-116	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-70/-65	-75
Spurious and Image Rejection, dB	-70	-75
Intermodulation, dB	-70	-75
Speaker Audio Output, milliwatts	350	500
Audio Distortion, % maximum	5	2
Static BER sensitivity @ 5% referenced @ 12.5 KHZ	-116	-119
Price FOB Destination freight prepaid & included in price		\$1,580.00
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		EFJohnson
Prices are based on price list quoted above dated:		02/01/2007

REQUIRED OPTIONS		
Part Number	Description	Price
250-5100-235	Battery Charger/Dual Power Option	\$80.00
included	Emergency Button Option	
included	Position Rotary Channel/Mode Select Switch Option	
included	Low Battery Alert Tone Option	
included	Programmable Button Option	
included	Push-to-talk ID Transmission Option	
included	Alphanumeric Display Option	
included	Adaptive Transmitter Power Control Option	
52X(3orC)	Dual Tone Multi Frequency encoder and Key Pad Option	\$160.55
585-5100-122	Leather Carrying Case Option	\$52.50
589-0015-0057	External Speaker/Microphone Option	\$97.50
OPTIONAL OPTIONS		
n/a	RF Power Amplifiers Option	n/a
n/a	Paging Decoder Option	n/a
585-5100-260	Vehicular Charger/Console Option	\$96.00

**EF Johnson Company – Phase II**

Portable Digital

UHF 450-470 Quality Category D

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	2	48
Operational Bandwidth/Maximum Frequency Separation, MHz	20	Full Bandsplit
Frequency Stability (-30 °C to + 60 °C), PPM	5	± 2.0
Channel Spacing, kHz	12.5/20/25	12.5 / 25 / 30
<b>TRANSMITTER</b>		
RF Power Output, Watts	1/4 selectable (Low/High)	1/4 selectable (Low/High)
Radiated Spurious & Harmonic Emission, dB	-60	-75
FM Noise, dB	-40	-45
Audio Distortion, % maximum	5	2
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-116	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-70/-65	-75
Spurious and Image Rejection, dB	-70	-75
Intermodulation, dB	-70	-75
Speaker Audio Output, milliwatts	350	500
Audio Distortion, % maximum	5	2
Static BER sensitivity @ 5% referenced @ 12.5 KHZ	-116	-119
Price FOB Destination freight prepaid & included in price		\$1,580.00
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		EFJohnson
Prices are based on price list quoted above dated:		02/01/2007

REQUIRED OPTIONS		
Part Number	Description	Price
250-5100-235	Battery Charger/Dual Power Option	\$80.00
included	Emergency Button Option	
included	Position Rotary Channel/Mode Select Switch Option	
included	Low Battery Alert Tone Option	
included	Programmable Button Option	
included	Push-to-talk ID Transmission Option	
included	Alphanumeric Display Option	
included	Adaptive Transmitter Power Control Option	
52X(3orC)	Dual Tone Multi Frequency encoder and Key Pad Option	\$160.55
585-5100-122	Leather Carrying Case Option	\$52.50
589-0015-057	External Speaker/Microphone Option	\$97.50
OPTIONAL OPTIONS		
n/a	RF Power Amplifiers Option	n/a
n/a	Paging Decoder Option	n/a
585-5100-260	Vehicular Charger/Console Option	\$96.00

**EF Johnson Company – Phase II**

Portable Digital

UHF 806-870 Quality Category A

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	160	512
Operational Bandwidth/Maximum Frequency Separation, MHz	64	Full Bandsplit
Frequency Stability (-30 °C to + 60 °C), PPM	1.5	± 1.5
Channel Spacing, kHz	12.5/25	12.5 / 25 / 30
<b>TRANSMITTER</b>		
RF Power Output, Watts	1/3 selectable (Low/High)	1/3 selectable (Low/High)
Radiated Spurious & Harmonic Emission, dB	-60	-75
FM Noise, dB	-40	-40
Audio Distortion, % maximum	2	2
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-119	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-75/-63	-75/-63
Spurious and Image Rejection, dB	-75	-75
Intermodulation, dB	-74	-75
Speaker Audio Output, milliwatts	500	500
Audio Distortion, % maximum	2	2
Static BER sensitivity @ 5% referenced @ 12.5 KHZ, dBm	-119	-119
Price FOB Destination freight prepaid & included in price		\$1,713.25
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		EFJohnson
Prices are based on price list quoted above dated:		02/01/2007

REQUIRED OPTIONS		
Part Number	Description	Price
250-5100-235	Battery Charger/Dual Power Option	\$80.00
52X(3orC)	Dual Tone Multi Frequency encoder and Key Pad Option	\$160.55
585-5100-122	Leather Carrying Case Option	\$52.50
n/a	RF Power Amplifiers Option	n/a
589-0015-057	External Speaker/Microphone Option	\$97.50
n/a	Paging Decoder Option	n/a
OPTIONAL OPTIONS		
585-5100-260	Vehicular Charger/Console Option	\$96.00
See Attached	See Price Pages attached for complete Accessories and Options	

**EF Johnson Company – Phase II**

Portable Digital

UHF 806-870 Quality Category B

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	48	256
Operational Bandwidth/Maximum Frequency Separation, MHz	64	Full Bandsplit
Frequency Stability (-30 °C to + 60 °C), PPM	1.5	± 1.5
Channel Spacing, kHz	12.5/25	12.5 / 25 / 30
<b>TRANSMITTER</b>		
RF Power Output, Watts	1/3 selectable (Low/High)	1/3 selectable (Low/High)
Radiated Spurious & Harmonic Emission, dB	-60	-75
FM Noise, dB	-40	-40
Audio Distortion, % maximum	2	2
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-119	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-75/-63	-75/-63
Spurious and Image Rejection, dB	-75	-75
Intermodulation, dB	-74	-75
Speaker Audio Output, milliwatts	500	500
Audio Distortion, % maximum	2	2
Static BER sensitivity @ 5% referenced @ 12.5 KHZ, dBm	-119	-119
Price FOB Destination freight prepaid & included in price		\$1,660.00
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		EFJohnson
Prices are based on price list quoted above dated:		02/01/2007

REQUIRED OPTIONS		
Part Number	Description	Price
250-5100-235	Battery Charger/Vehicular Battery or Nominal 120 VAC, 60 HZ*	\$80.00
52X(3orC)	Dual Tone Multi Frequency encoder and Key Pad Option	\$160.55
585-5100-122	Leather Carrying Case Option	\$52.50
n/a	RF Power Amplifiers Option	n/a
589-0015-057	External Speaker/Microphone Option	\$97.50
n/a	Paging Decoder Option	n/a
OPTIONAL OPTIONS		
585-5100-260	Vehicular Charger/Console Option	\$96.00
See Attached	See Price Pages attached for complete Accessories and Options	

**EF Johnson Company – Phase II**

Portable Digital

UHF 806-870 Quality Category C

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	14	48
Operational Bandwidth/Maximum Frequency Separation, MHz	64	Full Bandsplit
Frequency Stability (-30 °C to + 60 °C), PPM	2.5	± 1.5
Channel Spacing, kHz	12.5/25	12.5 / 25 / 30
<b>TRANSMITTER</b>		
RF Power Output, Watts	1/3 selectable (Low/High)	1/3 selectable (Low/High)
Radiated Spurious & Harmonic Emission, dB	-45	-75
FM Noise, dB	-40	-40
Audio Distortion, % maximum	5	2
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-116	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-70/-65	-75
Spurious and Image Rejection, dB	-70	-75
Intermodulation, dB	-70	-75
Speaker Audio Output, milliwatts	350	500
Audio Distortion, % maximum	5	2
Static BER sensitivity @ 5% referenced @ 12.5 KHZ, dBm	-116	-119
Price FOB Destination freight prepaid & included in price		\$1,580.00
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		EFJohnson
Prices are based on price list quoted above dated:		02/01/2007

REQUIRED OPTIONS		
Part Number	Description	Price
250-5100-235	Battery Charger/Dual Power Option	\$80.00
included	Emergency Button Option	
included	Position Rotary Channel/Mode Select Switch Option	
included	Low Battery Alert Tone Option	
included	Programmable Button Option	
included	Push-to-talk ID Transmission Option	
included	Alphanumeric Display Option	
included	Adaptive Transmitter Power Control Option	
52X(3orC)	Dual Tone Multi Frequency encoder and Key Pad Option	\$160.55
585-5100-122	Leather Carrying Case Option	\$52.50
589-0015-057	External Speaker/Microphone Option	\$97.50
OPTIONAL OPTIONS		
n/a	RF Power Amplifiers Option	n/a
n/a	Paging Decoder Option	n/a
585-5100-260	Vehicular Charger/Console Option	\$96.00

**EF Johnson Company – Phase II**

Portable Digital

UHF 806-870 Quality Category D

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	2	48
Operational Bandwidth/Maximum Frequency Separation, MHz	64	Full Bandsplit
Frequency Stability (-30 °C to + 60 °C), PPM	2.5	± 1.5
Channel Spacing, kHz	12.5/25	12.5 / 25 / 30
<b>TRANSMITTER</b>		
RF Power Output, Watts	1/3 selectable (Low/High)	1/3 selectable (Low/High)
Radiated Spurious & Harmonic Emission, dB	-45	-75
FM Noise, dB	-40	-40
Audio Distortion, % maximum	5	2
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-116	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-60/-55	-75
Spurious and Image Rejection, dB	-65	-75
Intermodulation, dB	-65	-75
Speaker Audio Output, milliwatts	350	500
Audio Distortion, % maximum	5	2
Static BER sensitivity @ 5% referenced @ 12.5 KHZ, dBm	-116	-119
Price FOB Destination freight prepaid & included in price		\$1,420.00
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		EFJohnson
Prices are based on price list quoted above dated:		02/01/2007

REQUIRED OPTIONS		
Part Number	Description	Price
250-5100-235	Battery Charger/Dual Power Option	\$80.00
included	Emergency Button Option	-
included	Position Rotary Channel/Mode Select Switch Option	-
included	Low Battery Alert Tone Option	-
included	Programmable Button Option	-
included	Push-to-talk ID Transmission Option	-
n/a	Alphanumeric Display Option	-
included	Adaptive Transmitter Power Control Option	-
52X(3orC)	Dual Tone Multi Frequency encoder and Key Pad Option	\$160.55
585-5100-122	Leather Carrying Case Option	\$52.50
589-0015-057	External Speaker/Microphone Option	\$97.50
OPTIONAL OPTIONS		
n/a	RF Power Amplifiers Option	n/a
n/a	Paging Decoder Option	n/a
585-5100-260	Vehicular Charger/Console Option	\$96.00

**EF Johnson Company – Phase II**

Desktop Digital

High VHF 136-174 Quality Category D

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	16	48
Operational Bandwidth/Maximum Frequency Separation, MHz	38	Full Bandsplit
Frequency Stability (-30 °C to + 60 °C), PPM	5	2.0
Channel Spacing, kHz	12.5 / 25	12.5 / 25 / 30
RF Input/Output Impedance, Ohms	50	50
<b>TRANSMITTER</b>		
RF Power Output, Watts	25	50
Radiated Spurious & Harmonic Emission, dB	-55	-75
FM Noise, dB	-45	-45
Audio Distortion, % maximum	5	2
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-116	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-75/-65	-75
Spurious and Image Rejection, dB	-75	-75
Intermodulation, dB	-70	-75
Speaker Audio Output, watts	3	5
Audio Distortion, % maximum	5	3
Static BER sensitivity @ 5% referenced @ 12.5 KHZ, dBm	-116	-119
Price FOB Destination freight prepaid & included in price		\$2,130.00
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		EFJohnson
Prices are based on price list quoted above dated:		02/01/2007

OPTIONAL OPTIONS		
Part Number	Description	Price
See Attached	See Price Pages attached for complete Accessories and Options	

**EF Johnson Company – Phase II**

Desktop Digital

UHF 806-870 Quality Category C

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	32	256
Operational Bandwidth/Maximum Frequency Separation, MHz	64	Full Bandsplit
Frequency Stability (-30 °C to + 60 °C), PPM	2.5	2.0
Channel Spacing, kHz	12.5 / 25	12.5 / 25 / 30
RF Input/Output Impedance, Ohms	50	50
<b>TRANSMITTER</b>		
RF Power Output, Watts	35	35
Radiated Spurious & Harmonic Emission, dB	-60	-75
FM Noise, dB	-35	-45
Audio Distortion, % maximum	5	2
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-116	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-70/-60	-75/-63
Spurious and Image Rejection, dB	-70	-75
Intermodulation, dB	-68	-75
Speaker Audio Output, watts	3	5
Audio Distortion, % maximum	5	3
Static BER sensitivity @ 5% referenced @ 12.5 KHZ, dBm	-116	-119
Price FOB Destination freight prepaid & included in price		\$2,146.20
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		EFJohnson
Prices are based on price list quoted above dated:		02/01/2007

OPTIONAL OPTIONS		
Part Number	Description	Price
See Attached	See Price Pages attached for complete Accessories and Options	

**EF Johnson Company – Phase II**

Desktop Digital

UHF 806-870 Quality Category D

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	16	48
Operational Bandwidth/Maximum Frequency Separation, MHz	64	Full Bandsplit
Frequency Stability (-30 °C to + 60 °C), PPM	2.5	2.0
Channel Spacing, kHz	12.5 / 25	12.5 / 25 / 30
RF Input/Output Impedance, Ohms	50	50
<b>TRANSMITTER</b>		
RF Power Output, Watts	15	35
Radiated Spurious & Harmonic Emission, dB	-55	-75
FM Noise, dB	-35	-45
Audio Distortion, % maximum	5	2
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-115	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-65/-60	-75/-63
Spurious and Image Rejection, dB	-70	-75
Intermodulation, dB	-65	-75
Speaker Audio Output, watts	3	5
Audio Distortion, % maximum	5	3
Static BER sensitivity @ 5% referenced @ 12.5 KHZ, dBm	-115	-119
Price FOB Destination freight prepaid & included in price		\$2,130.00
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		EFJohnson
Prices are based on price list quoted above dated:		02/01/2007

REQUIRED OPTIONS		
Part Number	Description	Price
See Attached	See Price Pages attached for complete Accessories and Options	

**EF Johnson Company – Phase II**

## Mobile Digital

## High VHF 136-174 Quality Category C

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	32	256
Operational Bandwidth/Maximum Frequency Separation, MHz	38	Full Bandsplit
Frequency Stability (-30 °C to + 60 °C), PPM	5	2.0
Channel Spacing, kHz	12.5 / 25	12.5 / 25 / 30
RF Input/Output Impedance, Ohms	50	50
<b>TRANSMITTER</b>		
RF Power Output, Watts	40	50
Radiated Spurious & Harmonic Emission, dB	-70	-75
FM Noise, dB	-45	-45
Audio Distortion, % maximum	5	2
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-116	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-70/-65	-75
Spurious and Image Rejection, dB	-70	-75
Intermodulation, dB	-70	-75
Speaker Audio Output, watts	3	5
Audio Distortion, % maximum	5	3
Static BER sensitivity @ 5% referenced @ 12.5 KHZ, dBm	-116	-119
Price FOB Destination freight prepaid & included in price		\$1,846.90
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		EFJohnson
Prices are based on price list quoted above dated:		02/01/2007

REQUIRED OPTIONS		
Part Number	Description	Price
	Separate Data Connector Option	available
250-4001-202	Desktop/Mobile Conversion Option	\$236.00
included	Emergency Button Option	
included	Programmable Button Option	
included	Push-to-talk ID Transmission Option	
included	Alphanumeric display Option	
OPTIONAL OPTIONS		
included	Single Unit Dash Mount Option	
n/a	Second Programmable Receiver with Separate Speaker	n/a
See Attached	See Price Pages attached for complete Accessories and Options	

**EF Johnson Company – Phase II****Mobile Digital****High VHF 136-174 Quality Category D**

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	16	48
Operational Bandwidth/Maximum Frequency Separation, MHz	38	Full Bandsplit
Frequency Stability (-30 °C to + 60 °C), PPM	5	2.0
Channel Spacing, kHz	12.5 / 25	12.5 / 25 / 30
RF Input/Output Impedance, Ohms	50	50
<b>TRANSMITTER</b>		
RF Power Output, Watts	25	50
Radiated Spurious & Harmonic Emission, dB	-55	-75
FM Noise, dB	-45	-45
Audio Distortion, % maximum	5	2
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-116	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-70/-65	-75
Spurious and Image Rejection, dB	-70	-75
Intermodulation, dB	-70	-75
Speaker Audio Output, watts	3	5
Audio Distortion, % maximum	5	3
Static BER sensitivity @ 5% referenced @ 12.5 KHZ, dBm	-116	-119
Price FOB Destination freight prepaid & included in price		\$1,822.50
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		EFJohnson
Prices are based on price list quoted above dated:		02/01/2007

REQUIRED OPTIONS		
Part Number	Description	Price
	Separate Data Connector Option	available
250-4001-202	Desktop/Mobile Conversion Option	\$236.00
included	Emergency Button Option	
included	Programmable Button Option	
included	Push-to-talk ID Transmission Option	
included	Alphanumeric display Option	
OPTIONAL OPTIONS		
included	Single Unit Dash Mount Option	
n/a	Second Programmable Receiver with Separate Speaker	n/a
See Attached	See Price Pages attached for complete Accessories and Options	

**EF Johnson Company – Phase II**

Mobile Digital

UHF 806-870 Quality Category C

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	32	256
Operational Bandwidth/Maximum Frequency Separation, MHz	64	Full Bandsplit
Frequency Stability (-30 °C to + 60 °C), PPM	2.5	2.0
Channel Spacing, kHz	12.5 / 25	12.5 / 25 / 30
RF Input/Output Impedance, Ohms	50	50
<b>TRANSMITTER</b>		
RF Power Output, Watts	35	35
Radiated Spurious & Harmonic Emission, dB	-60	-75
FM Noise, dB	-35	-45
Audio Distortion, % maximum	5	2
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-115	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-70/-65	-75/-63
Spurious and Image Rejection, dB	-70	-75
Intermodulation, dB	-68	-75
Speaker Audio Output, watts	3	5
Audio Distortion, % maximum	5	3
Static BER sensitivity @ 5% referenced @ 12.5 KHZ, dBm	-115	-119
Price FOB Destination freight prepaid & included in price		\$1,846.90
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		EFJohnson
Prices are based on price list quoted above dated:		02/01/2007

REQUIRED OPTIONS		
Part Number	Description	Price
	Separate Data Connector Option	available
250-4001-202	Desktop/Mobile Conversion Option	\$236.00
included	Emergency Button Option	
included	Programmable Button Option	
included	Push-to-talk ID Transmission Option	
included	Alphanumeric display Option	
OPTIONAL OPTIONS		
included	Single Unit Dash Mount Option	
n/a	Second Programmable Receiver with Separate Speaker	n/a
See Attached	See Price Pages attached for complete Accessories and Options	

**EF Johnson Company – Phase II**

Mobile Digital

UHF 806-870 Quality Category D

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	16	48
Operational Bandwidth/Maximum Frequency Separation, MHz	64	Full Bandsplit
Frequency Stability (-30 °C to + 60 °C), PPM	2.5	2.0
Channel Spacing, kHz	12.5 / 25	12.5 / 25 / 30
RF Input/Output Impedance, Ohms	50	50
<b>TRANSMITTER</b>		
RF Power Output, Watts	15	35
Radiated Spurious & Harmonic Emission, dB	-55	-75
FM Noise, dB	-35	-45
Audio Distortion, % maximum	5	2
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-115	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-70/-65	-75/-63
Spurious and Image Rejection, dB	-70	-75
Intermodulation, dB	-68	-75
Speaker Audio Output, watts	3	5
Audio Distortion, % maximum	5	3
Static BER sensitivity @ 5% referenced @ 12.5 KHZ, dBm	-115	-119
Price FOB Destination freight prepaid & included in price		\$1,822.50
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		EFJohnson
Prices are based on price list quoted above dated:		02/01/2007

REQUIRED OPTIONS		
Part Number	Description	Price
	Separate Data Connector Option	available
250-4001-202	Desktop/Mobile Conversion Option	\$236.00
included	Emergency Button Option	
included	Programmable Button Option	
included	Push-to-talk ID Transmission Option	
included	Alphanumeric display Option	
OPTIONAL OPTIONS		
included	Single Unit Dash Mount Option	
n/a	Second Programmable Receiver with Separate Speaker	n/a
See Attached	See Price Pages attached for complete Accessories and Options	

**EF Johnson Company – Phase II**

Mobile Trunked Digital

High VHF 136-174 Quality Category C

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	32	256
Operational Bandwidth/Maximum Frequency Separation, MHz	38	Full Bandsplit
Frequency Stability (-30 °C to + 60 °C), PPM	5	2.0
Channel Spacing, kHz	12.5 / 25	12.5 / 25 / 30
RF Input/Output Impedance, Ohms	50	50
<b>APCO P-25 TRUNKED STANDARDS</b>		
<b>TRANSMITTER</b>		
RF Power Output, Watts	40	50
Radiated Spurious & Harmonic Emission, dB	-70	-75
FM Noise, dB	-45	-45
Audio Distortion, % maximum	5	2
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-116	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-70/-65	-75
Spurious and Image Rejection, dB	-70	-75
Intermodulation, dB	-70	-75
Speaker Audio Output, watts	3	5
Audio Distortion, % maximum	5	3
Static BER sensitivity @ 5% referenced @ 12.5 KHZ, dBm	-116	-119
Price FOB Destination freight prepaid & included in price		\$2,066.25
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		EFJohnson
Prices are based on price list quoted above dated:		02/01/2007

REQUIRED OPTIONS		
Part Number	Description	Price
	Separate Data Connector Option	available
250-4001-202	Desktop/Mobile Conversion Option	\$236.00
included	Emergency Button Option	
included	Programmable Button Option	
included	Push-to-talk ID Transmission Option	
included	Alphanumeric display Option	
OPTIONAL OPTIONS		
Part Number	Description	Price
included	Single Unit Dash Mount Option	
n/a	Second Programmable Receiver with Separate Speaker	n/a

**EF Johnson Company – Phase II**

Mobile Trunked Digital

High VHF 136-174 Quality Category D

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	16	48
Operational Bandwidth/Maximum Frequency Separation, MHz	38	Full Bandsplit
Frequency Stability (-30 °C to + 60 °C), PPM	5	2.0
Number of Channels/Modes/Personalities	12.5 / 25	12.5 / 25 / 30
RF Input/Output Impedance, Ohms	50	50
<b>APCO P-25 TRUNKED STANDARDS</b>		
<b>TRANSMITTER</b>		
RF Power Output, Watts	25	50
Radiated Spurious & Harmonic Emission, dB	-55	-75
FM Noise, dB	-45	-45
Audio Distortion, % maximum	5	2
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-116	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-70/-65	-75
Spurious and Image Rejection, dB	-70	-75
Intermodulation, dB	-70	-75
Speaker Audio Output, watts	3	5
Audio Distortion, % maximum	5	3
Static BER sensitivity @ 5% referenced @ 12.5 KHZ, dBm	-116	-119
Price FOB Destination freight prepaid & included in price		\$1,991.25
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		EFJohnson
Prices are based on price list quoted above dated:		02/01/2007

REQUIRED OPTIONS		
Part Number	Description	Price
n/a	Separate Data Connector Option	n/a
250-4001-202	Desktop/Mobile Conversion Option	\$236.00
included	Emergency Button Option	
included	Programmable Button Option	
included	Push-to-talk ID Transmission Option	
included	Alphanumeric display Option	
OPTIONAL OPTIONS		
included	Single Unit Dash Mount Option	
n/a	Second Programmable Receiver with Separate Speaker	n/a
See Attached	See Price Pages attached for complete Accessories and Options	

**EF Johnson Company – Phase II**

Mobile Trunked Digital

UHF 806-870 Quality Category C

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	32	256
Operational Bandwidth/Maximum Frequency Separation, MHz	64	Full Bandsplit
Frequency Stability (-30 °C to + 60 °C), PPM	2.5	2.0
Channel Spacing, kHz	12.5 / 25	12.5 / 25 / 30
RF Input/Output Impedance, Ohms	50	50
<b>APCO P-25 TRUNKED STANDARDS</b>		
<b>TRANSMITTER</b>		
RF Power Output, Watts	35	35
Radiated Spurious & Harmonic Emission, dB	-60	-75
FM Noise, dB	-35	-45
Audio Distortion, % maximum	5	2
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-115	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-70/-65	-75
Spurious and Image Rejection, dB	-70	-75
Intermodulation, dB	-68	-73
Speaker Audio Output, watts	3	5
Audio Distortion, % maximum	5	3
Static BER sensitivity @ 5% referenced @ 12.5 KHZ, dBm	-115	-119
Price FOB Destination freight prepaid & included in price		\$2,066.25
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		EFJohnson
Prices are based on price list quoted above dated:		02/01/2007

REQUIRED OPTIONS		
Part Number	Description	Price
n/a	Separate Data Connector Option	n/a
250-4001-202	Desktop/Mobile Conversion Option	\$236.00
included	Emergency Button Option	
included	Programmable Button Option	
included	Push-to-talk ID Transmission Option	
included	Alphanumeric display Option	
OPTIONAL OPTIONS		
included	Single Unit Dash Mount Option	
n/a	Second Programmable Receiver with Separate Speaker	n/a
See Attached	See Price Pages attached for complete Accessories and Options	

**EF Johnson Company – Phase II**

Mobile Trunked Digital

UHF 806-870 Quality Category D

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	16	48
Operational Bandwidth/Maximum Frequency Separation, MHz	64	Full Bandsplit
Frequency Stability (-30 °C to + 60 °C), PPM	2.5	2.0
Channel Spacing, kHz	12.5 / 25	12.5 / 25 / 30
RF Input/Output Impedance, Ohms	50	50
<b>APCO P-25 TRUNKED STANDARDS</b>		
<b>TRANSMITTER</b>		
RF Power Output, Watts	15	35
Radiated Spurious & Harmonic Emission, dB	-55	-75
FM Noise, dB	-35	-45
Audio Distortion, % maximum	5	2
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-115	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-70/-65	-75
Spurious and Image Rejection, dB	-70	-75
Intermodulation, dB	-68	-73
Speaker Audio Output, watts	3	5
Audio Distortion, % maximum	5	3
Static BER sensitivity @ 5% referenced @ 12.5 KHZ, dBm	-115	-119
Price FOB Destination freight prepaid & included in price		\$1,991.25
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		EFJohnson
Prices are based on price list quoted above dated:		02/01/2007

REQUIRED OPTIONS		
Part Number	Description	Price
	Separate Data Connector Option	available
250-4001-202	Desktop/Mobile Conversion Option	\$236.00
included	Emergency Button Option	
included	Programmable Button Option	
included	Push-to-talk ID Transmission Option	
included	Alphanumeric display Option	
OPTIONAL OPTIONS		
included	Single Unit Dash Mount Option	
n/a	Second Programmable Receiver with Separate Speaker	n/a
See Attached	See Price Pages attached for complete Accessories and Options	

**EF Johnson Company – Phase II**

Portable Trunked Digital

High VHF 136-174 Quality Category B

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	48	256
Operational Bandwidth/Maximum Frequency Separation, MHz	38	Full Bandsplit
Frequency Stability (-30 °C to + 60 °C), PPM	± 2.5	± 2.0
Channel Spacing, kHz	12.5 / 25 / 30	12.5 / 25 / 30
<b>APCO P-25 TRUNKED STANDARDS</b>		
<b>TRANSMITTER</b>		
RF Power Output, Watts	1/5 selectable (Low/High)	1/5 selectable (Low/High)
Radiated Spurious & Harmonic Emission, dB	-70	-75
FM Noise, dB	-45	-45
Audio Distortion, % maximum	2	2
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-119	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-75/-70	-75
Spurious and Image Rejection, dB	-75	-75
Intermodulation, dB	-75	-75
Speaker Audio Output, milliwatts	500	500
Audio Distortion, % maximum	2	2
Static BER sensitivity @ 5% referenced @ 12.5 KHZ, dBm	-119	-119
Price FOB Destination freight prepaid & included in price		\$1,689.95
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		EFJohnson
Prices are based on price list quoted above dated:		02/01/2007

REQUIRED OPTIONS		
Part Number	Description	Price
250-5100-235	Battery Charger/Vehicular Battery or Nominal 120 VAC, 60 HZ*	\$80.00
52X(3orC)	Dual Tone Multi Frequency encoder and Key Pad Option	\$160.55
585-5100-122	Leather Carrying Case Option	\$52.50
n/a	RF Power Amplifiers Option	n/a
589-0015-057	External Speaker/Microphone Option	\$97.50
n/a	Paging Decoder Option	n/a
OPTIONAL OPTIONS		
585-5100-260	Vehicular Charger/Console Option	\$96.00
See Attached	See Price Pages attached for complete Accessories and Options	

**EF Johnson Company – Phase II**  
**Portable Trunked Digital**  
**High VHF 136-174 Quality Category C**

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	14	48
Operational Bandwidth/Maximum Frequency Separation, MHz	38	Full Bandsplit
Frequency Stability (-30 °C to + 60 °C), PPM	± 2.5	± 2.0
Channel Spacing, kHz	12.5 / 25 / 30	12.5 / 25 / 30
<b>APCO P-25 TRUNKED STANDARDS</b>		
<b>TRANSMITTER</b>		
RF Power Output, Watts	1/5 selectable (Low/High)	1/5 selectable (Low/High)
Radiated Spurious & Harmonic Emission, dB	-60	-75
FM Noise, dB	-43	-45
Audio Distortion, % maximum	3	2
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-116	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-70/-60	-75
Spurious and Image Rejection, dB	-70	-75
Intermodulation, dB	-70	-75
Speaker Audio Output, milliwatts	350	500
Audio Distortion, % maximum	5	2
Static BER sensitivity @ 5% referenced @ 12.5 KHZ, dBm	-116	-119
Price FOB Destination freight prepaid & included in price		\$1,661.25
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		EFJohnson
Prices are based on price list quoted above dated:		02/01/2007

**EF Johnson Company – Phase II**

REQUIRED OPTIONS		
Part Number	Description	Price
250-5100-235	Battery Charger/Dual Power Option	\$80.00
included	Emergency Button Option	
included	Position Rotary Channel/Mode Select Switch Option	
included	Low Battery Alert Tone Option	
included	Programmable Button Option	
included	Push-to-talk ID Transmission Option	
included	Alphanumeric Display Option	
included	Adaptive Transmitter Power Control Option	
52X(3orC)	Dual Tone Multi Frequency encoder and Key Pad Option	\$160.55
585-5100-122	Leather Carrying Case Option	\$52.50
589-0015-057	External Speaker/Microphone Option	\$97.50
OPTIONAL OPTIONS		
n/a	RF Power Amplifiers Option	n/a
n/a	Paging Decoder Option	n/a
585-5100-260	Vehicular Charger/Console Option	\$96.00
See Attached	See Price Pages attached for complete Accessories and Options	

**EF Johnson Company – Phase II**

Portable Trunked Digital

High VHF 136-174 Quality Category D

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	2	48
Operational Bandwidth/Maximum Frequency Separation, MHz	38	Full Bandsplit
Frequency Stability (-30 °C to + 60 °C), PPM	± 2.5	± 2.0
Channel Spacing, kHz	12.5 / 25 / 30	12.5 / 25 / 30
<b>APCO P-25 TRUNKED STANDARDS</b>		
<b>TRANSMITTER</b>		
RF Power Output, Watts	1/5 selectable (Low/High)	1/5 selectable (Low/High)
Radiated Spurious & Harmonic Emission, dB	-57	-75
FM Noise, dB	-40	-45
Audio Distortion, % maximum	5	2
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-116	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-70/-60	-75
Spurious and Image Rejection, dB	-70	-75
Intermodulation, dB	-60	-75
Speaker Audio Output, milliwatts	350	500
Audio Distortion, % maximum	5	2
Static BER sensitivity @ 5% referenced @ 12.5 KHZ, dBm	-116	-119
Price FOB Destination freight prepaid & included in price		\$1,661.25
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		EFJohnson
Prices are based on price list quoted above dated:		02/01/2007

**EF Johnson Company – Phase II**

REQUIRED OPTIONS		
Part Number	Description	Price
250-5100-235	Battery Charger/Dual Power Option	\$80.00
included	Emergency Button Option	
included	Position Rotary Channel/Mode Select Switch Option	
included	Low Battery Alert Tone Option	
included	Programmable Button Option	
included	Push-to-talk ID Transmission Option	
included	Alphanumeric Display Option	
included	Adaptive Transmitter Power Control Option	
52X(3orC)	Dual Tone Multi Frequency encoder and Key Pad Option	\$160.55
585-5100-122	Leather Carrying Case Option	\$52.50
589-0015-057	External Speaker/Microphone Option	\$97.50
OPTIONAL OPTIONS		
n/a	RF Power Amplifiers Option	n/a
n/a	Paging Decoder Option	n/a
585-5100-260	Vehicular Charger/Console Option	\$96.00
See Attached	See Price Pages attached for complete Accessories and Options	

**EF Johnson Company – Phase II**

Portable Trunked Digital

UHF 450-470 Quality Category A

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	160	512
Operational Bandwidth/Maximum Frequency Separation, MHz	20	Full Bandsplit
Frequency Stability (-30 °C to + 60 °C), PPM	2	± 2.0
Channel Spacing, kHz	12.5/20/25	12.5 / 25 / 30
<b>APCO P-25 TRUNKED STANDARDS</b>		
<b>TRANSMITTER</b>		
RF Power Output, Watts	1/4 selectable (Low/High)	1/4 selectable (Low/High)
Radiated Spurious & Harmonic Emission, dB	-70	-75
FM Noise, dB	-45	-45
Audio Distortion, % maximum	2	2
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-119	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-75	-75
Spurious and Image Rejection, dB	-75	-75
Intermodulation, dB	-75	-75
Speaker Audio Output, milliwatts	500	500
Audio Distortion, % maximum	2	2
Static BER sensitivity @ 5% referenced @ 12.5 KHZ	-119	-119
Price FOB Destination freight prepaid & included in price		\$1,690.50
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		EFJohnson
Prices are based on price list quoted above dated:		02/01/2007

REQUIRED OPTIONS		
Part Number	Description	Price
250-5100-235	Battery Charger/Vehicular Battery or Nominal 120 VAC, 60 HZ*	\$80.00
52X(3orC)	Dual Tone Multi Frequency encoder and Key Pad Option	\$160.55
585-5100-122	Leather Carrying Case Option	\$52.50
n/a	RF Power Amplifiers Option	n/a
589-0015-057	External Speaker/Microphone Option	\$97.50
n/a	Paging Decoder Option	n/a
OPTIONAL OPTIONS		
Part Number	Description	Price
585-5100-260	Vehicular Charger/Console Option	\$96.00
See Attached	See Price Pages attached for complete Accessories and Options	

**EF Johnson Company – Phase II**

Portable Trunked Digital

UHF 450-470 Quality Category B

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	40	256
Operational Bandwidth/Maximum Frequency Separation, MHz	20	Full Bandsplit
Frequency Stability (-30 °C to + 60 °C), PPM	2	± 2.0
Channel Spacing, kHz	12.5/20/25	12.5 / 25 / 30
<b>APCO P-25 TRUNKED STANDARDS</b>		
<b>TRANSMITTER</b>		
RF Power Output, Watts	1/4 selectable (Low/High)	1/4 selectable (Low/High)
Radiated Spurious & Harmonic Emission, dB	-70	-75
FM Noise, dB	-45	-45
Audio Distortion, % maximum	2	2
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-119	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-75/-68	-75
Spurious and Image Rejection, dB	-75	-75
Intermodulation, dB	-75	-75
Speaker Audio Output, milliwatts	500	500
Audio Distortion, % maximum	2	2
Static BER sensitivity @ 5% referenced @ 12.5 KHZ	-119	-119
Price FOB Destination freight prepaid & included in price		\$1,679.00
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		EFJohnson
Prices are based on price list quoted above dated:		02/01/2007

REQUIRED OPTIONS		
Part Number	Description	Price
250-5100-235	Battery Charger/Dual Power Option	\$80.00
52X(3orC)	Dual Tone Multi Frequency encoder and Key Pad Option	\$160.55
585-5100-122	Leather Carrying Case Option	\$52.50
n/a	RF Power Amplifiers Option	n/a
589-0015-057	External Speaker/Microphone Option	\$97.50
n/a	Paging Decoder Option	n/a
OPTIONAL OPTIONS		
585-5100-260	Vehicular Charger/Console Option	\$96.00
See Attached	See Price Pages attached for complete Accessories and Options	

**EF Johnson Company – Phase II**

Portable Trunked Digital

UHF 450-470 Quality Category C

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	14	48
Operational Bandwidth/Maximum Frequency Separation, MHz	20	Full Bandsplit
Frequency Stability (-30 °C to + 60 °C), PPM	5	± 2.0
Channel Spacing, kHz	12.5/20/25	12.5 / 25 / 30
<b>APCO P-25 TRUNKED STANDARDS</b>		
<b>TRANSMITTER</b>		
RF Power Output, Watts	1/4 selectable (Low/High)	1/4 selectable (Low/High)
Radiated Spurious & Harmonic Emission, dB	-60	-75
FM Noise, dB	-43	-45
Audio Distortion, % maximum	5	2
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-116	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-70/-65	-75
Spurious and Image Rejection, dB	-70	-75
Intermodulation, dB	-70	-75
Speaker Audio Output, milliwatts	350	500
Audio Distortion, % maximum	5	2
Static BER sensitivity @ 5% referenced @ 12.5 KHZ	-116	-119
Price FOB Destination freight prepaid & included in price		\$1,650.00
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		EFJohnson
Prices are based on price list quoted above dated:		02/01/2007

**EF Johnson Company – Phase II**

REQUIRED OPTIONS		
Part Number	Description	Price
250-5100-235	Battery Charger/Dual Power Option	\$80.00
included	Emergency Button Option	
included	Position Rotary Channel/Mode Select Switch Option	
included	Low Battery Alert Tone Option	
included	Programmable Button Option	
included	Push-to-talk ID Transmission Option	
included	Alphanumeric Display Option	
included	Adaptive Transmitter Power Control Option	
52X(3orC)	Dual Tone Multi Frequency encoder and Key Pad Option	\$160.55
585-5100-122	Leather Carrying Case Option	\$52.50
589-0015-057	External Speaker/Microphone Option	\$97.50
OPTIONAL OPTIONS		
n/a	RF Power Amplifiers Option	n/a
n/a	Paging Decoder Option	n/a
585-5100-260	Vehicular Charger/Console Option	\$96.00

**EF Johnson Company – Phase II**

Portable Trunked Digital

UHF 450-470 Quality Category D

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	2	48
Operational Bandwidth/Maximum Frequency Separation, MHz	20	Full Bandsplit
Frequency Stability (-30 °C to + 60 °C), PPM	5	± 2.0
Channel Spacing, kHz	12.5/20/25	12.5 / 25 / 30
<b>APCO P-25 TRUNKED STANDARDS</b>		
<b>TRANSMITTER</b>		
RF Power Output, Watts	1/4 selectable (Low/High)	1/4 selectable (Low/High)
Radiated Spurious & Harmonic Emission, dB	-60	-75
FM Noise, dB	-40	-45
Audio Distortion, % maximum	5	2
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-116	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-70/-65	-75
Spurious and Image Rejection, dB	-70	-75
Intermodulation, dB	-70	-75
Speaker Audio Output, milliwatts	350	500
Audio Distortion, % maximum	5	2
Static BER sensitivity @ 5% referenced @ 12.5 KHZ	-116	-119
Price FOB Destination freight prepaid & included in price		\$1,650.00
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		EFJohnson
Prices are based on price list quoted above dated:		02/01/2007

**EF Johnson Company – Phase II**

REQUIRED OPTIONS		
Part Number	Description	Price
250-5100-235	Battery Charger/Dual Power Option	\$80.00
included	Emergency Button Option	
included	Position Rotary Channel/Mode Select Switch Option	
included	Low Battery Alert Tone Option	
included	Programmable Button Option	
included	Push-to-talk ID Transmission Option	
included	Alphanumeric Display Option	
included	Adaptive Transmitter Power Control Option	
52X(3orC)	Dual Tone Multi Frequency encoder and Key Pad Option	\$160.55
585-5100-122	Leather Carrying Case Option	\$52.50
589-0015-057	External Speaker/Microphone Option	\$97.50
OPTIONAL OPTIONS		
n/a	RF Power Amplifiers Option	n/a
n/a	Paging Decoder Option	n/a
585-5100-260	Vehicular Charger/Console Option	\$96.00

**EF Johnson Company – Phase II**

Portable Trunked Digital

UHF 806-870 Quality Category B

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	48	256
Operational Bandwidth/Maximum Frequency Separation, MHz	64	Full Bandsplit
Frequency Stability (-30 °C to + 60 °C), PPM	1.5	± 2.0
Channel Spacing, kHz	12.5/25	12.5 / 25
<b>APCO P-25 TRUNKED STANDARDS</b>		
<b>TRANSMITTER</b>		
RF Power Output, Watts	1/3 selectable (Low/High)	1/3 selectable (Low/High)
Radiated Spurious & Harmonic Emission, dB	-60	-75
FM Noise, dB	-40	-40
Audio Distortion, % maximum	2	2
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-119	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-75/-63	-75
Spurious and Image Rejection, dB	-75	-75
Intermodulation, dB	-74	-75
Speaker Audio Output, milliwatts	500	500
Audio Distortion, % maximum	2	2
Static BER sensitivity @ 5% referenced @ 12.5 KHZ, dBm	-119	-119
Price FOB Destination freight prepaid & included in price		\$1,679.00
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		EFJohnson
Prices are based on price list quoted above dated:		02/01/2007

REQUIRED OPTIONS		
Part Number	Description	Price
250-5100-235	Battery Charger/Vehicular Battery or Nominal 120 VAC, 60 HZ*	\$80.00
52X(3orC)	Dual Tone Multi Frequency encoder and Key Pad Option	\$160.55
585-5100-122	Leather Carrying Case Option	\$52.50
n/a	RF Power Amplifiers Option	n/a
589-0015-057	External Speaker/Microphone Option	\$97.50
n/a	Paging Decoder Option	n/a
OPTIONAL OPTIONS		
585-5100-260	Vehicular Charger/Console Option	\$96.00
See Attached	See Price Pages for complete Accessories and Options	

**EF Johnson Company – Phase II**

Portable Trunked Digital

UHF 806-870 Quality Category C

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	14	48
Operational Bandwidth/Maximum Frequency Separation, MHz	64	Full Bandsplit
Frequency Stability (-30 °C to + 60 °C), PPM	2.5	± 2.0
Channel Spacing, kHz	12.5/25	12.5 / 25
<b>APCO P-25 TRUNKED STANDARDS</b>		
<b>TRANSMITTER</b>		
RF Power Output, Watts	1/3 selectable (Low/High)	1/3 selectable (Low/High)
Radiated Spurious & Harmonic Emission, dB	-45	-75
FM Noise, dB	-40	-40
Audio Distortion, % maximum	5	2
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-116	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-70/-65	-75
Spurious and Image Rejection, dB	-70	-75
Intermodulation, dB	-70	-75
Speaker Audio Output, milliwatts	350	500
Audio Distortion, % maximum	5	2
Static BER sensitivity @ 5% referenced @ 12.5 KHZ, dBm	-116	-119
Price FOB Destination freight prepaid & included in price		\$1,650.00
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		EFJohnson
Prices are based on price list quoted above dated:		02/01/2007

**EF Johnson Company – Phase II**

REQUIRED OPTIONS		
Part Number	Description	Price
250-5100-535	Battery Charger/Dual Power Option	\$80.00
included	Emergency Button Option	
included	Position Rotary Channel/Mode Select Switch Option	
included	Low Battery Alert Tone Option	
included	Programmable Button Option	
included	Push-to-talk ID Transmission Option	
included	Alphanumeric Display Option	
included	Adaptive Transmitter Power Control Option	
52X(3orC)	Dual Tone Multi Frequency encoder and Key Pad Option	\$160.55
585-5100-122	Leather Carrying Case Option	\$52.50
589-0015-057	External Speaker/Microphone Option	\$97.50
OPTIONAL OPTIONS		
n/a	RF Power Amplifiers Option	n/a
n/a	Paging Decoder Option	n/a
585-5100-260	Vehicular Charger/Console Option	\$96.00

**EF Johnson Company – Phase II**

Portable Trunked Digital

UHF 806-870 Quality Category D

	STANDARD SPECIFICATION	BIDDER'S SPECIFICATION
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	2	48
Operational Bandwidth/Maximum Frequency Separation, MHz	64	Full Bandsplit
Frequency Stability (-30 °C to + 60 °C), PPM	2.5	± 2.0
Channel Spacing, kHz	12.5/25	12.5 / 25
<b>APCO P-25 TRUNKED STANDARDS</b>		
<b>TRANSMITTER</b>		
RF Power Output, Watts	1/3 selectable (Low/High)	1/3 selectable (Low/High)
Radiated Spurious & Harmonic Emission, dB	-45	-75
FM Noise, dB	-40	-40
Audio Distortion, % maximum	5	2
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-116	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-60/-55	-75
Spurious and Image Rejection, dB	-65	-75
Intermodulation, dB	-65	-75
Speaker Audio Output, milliwatts	350	500
Audio Distortion, % maximum	5	2
Static BER sensitivity @ 5% referenced @ 12.5 KHZ, dBm	-116	-119
Price FOB Destination freight prepaid & included in price		\$1,500.00
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		EFJohnson
Prices are based on price list quoted above dated:		02/01/2007

**EF Johnson Company – Phase II**

REQUIRED OPTIONS		
Part Number	Description	Price
250-5100-235	Battery Charger/Dual Power Option	\$80.00
included	Emergency Button Option	
included	Position Rotary Channel/Mode Select Switch Option	
included	Low Battery Alert Tone Option	
included	Programmable Button Option	
included	Push-to-talk ID Transmission Option	
n/a	Alphanumeric Display Option	
included	Adaptive Transmitter Power Control Option	
n/a	Dual Tone Multi Frequency encoder and Key Pad Option	
585-5100-122	Leather Carrying Case Option	\$52.50
589-0015-057	External Speaker/Microphone Option	\$97.50
OPTIONAL OPTIONS		
n/a	RF Power Amplifiers Option	n/a
n/a	Paging Decoder Option	n/a
585-5100-260	Vehicular Charger/Console Option	\$96.00

**Eltek**Contractor: [EltekValere, Inc.](#)Contact: [Charles Bailey, Controller](#)  
1303 East Arapaho Road  
Richardson, TX 75081

Alternate Contact: Susanne Beck

Phone: (469) 330-3234

Purchasing (562) 987-5001 direct  
(562) 881-7746 cell

Fax: (815) 459-9118

Email: [Charles.bailey@eltekvalere.com](mailto:Charles.bailey@eltekvalere.com)[suzanne.beck@eltekvalere.com](mailto:suzanne.beck@eltekvalere.com)Internet address: [www.eltekenergy.com](http://www.eltekenergy.com)

(800) 435-4872 tech support (24/7)

Product Management John Baker, PH: 815-575-0246; [john.baker@eltekvalere.com](mailto:john.baker@eltekvalere.com)

Web catalog address:

Federal ID No.: 36-4233439

Supplier No.: W4914

Total Contract worth: \$500,000,000.00

Payment address: Eltek Energy, LLC  
LBX 619764  
Chicago, IL 60680-6197Order placement Eltek Valere  
address: 115 Erick St  
Crystal Lake, IL 60014-4533

Customer Service: Ms. Chris Lima

Telephone: (815) 444-4089

Fax: (800) 526-2524

Ordering procedures:

Credit card acceptance: VISA, MasterCard

Minimum orders:

Delivery time: 30 to 45 days ARO

Payment terms: Net 30

Shipping destination: Free on Board (FOB) destination

Freight: Prepaid and included

Palletization:

Category

Equipment Line items

Link to bid Specifications

Link to Price Sheets

Awarded Phase(s) Phase I

**Eltek**

CONTRACTOR WAREHOUSE Proposer(s) shall indicate below each warehouse location at which material, equipment or supplies will be stored.

ADDRESS:	<u>Eltek Valere</u>	PHONE:	<u>(800) 447-3484</u>
	<u>115 Erick Street</u>	CONTACT:	<u>Robert B. Johnson</u>
	<u>Crystal Lake, IL 60014-4533</u>		<u>Product Manager</u>

SERVICING: Indicate below the names and addresses of sales representatives and specific territories covered. Proposer's ability to service state agencies including local sales representation may be a factor in the award. Contractor must provide immediate attention to problem areas as they arise regardless of location. Submit an attached letter if necessary.

NAME:	<u>Precision Power</u>	NAME:	<u>Mountain Power &amp; Comm.</u>
	<u>Mr. Dave Cunningham</u>		<u>Mr. Mike Rayburn</u>
ADDRESS:	<u>5801 Silverado Way, Suite J12</u>	ADDRESS:	<u>2727 W. Second Ave.</u>
	<u>Anchorage, AK 99518</u>		<u>Denver, CO 80219</u>
TERRITORY:	<u>Alaska</u>	TERRITORY:	<u>Montana, Idaho, Wyoming, Utah,</u>
			<u>Colorado</u>
PHONE:	<u>(907) 561-7797</u>	PHONE:	<u>(303) 935-5901</u>

**FACTORY AUTHORIZED SERVICE:**

Factory authorized service must be available in the destination area. List your service centers including name and address of each.

All authorized factory service is handled from our North American headquarters.

FIRM NAME:	<u>Eltek Valere</u>
ADDRESS:	<u>115 Erick Street</u>
	<u>Crystal Lake, IL 60014-4533</u>

Dave Root (Washington dealer)

Tempest Telecom Solutions

253.223.6636 office

(805) 690-3345 fax

Dave Smargon (805) 690-3344 x244 (corp. number)

5383 Hollister Avenue

Suite 130

Santa Barbara, CA 93111

[www.tempesttelecom.com](http://www.tempesttelecom.com)

**Eltek**



authorized reseller  
10-31-08.pdf

**Elttek – Phase I**  
Price Sheets

Req. Item	Comm. Code	Description	Qty	Unit	Percentage off Mfg List Price
1.		Support Services Elttek offers a toll-free 24-hour no charge help line that is available exclusively for customer service assistance. The help line is answered 24 hours a day, seven days a week and 365 days a year.	Hourly	EA	N/C
2.		Installation Services Pricing for installation services is quoted on a job specific basis. Labor rates for installation services are as follows:  1. Transit rate to and from work site 2. Hourly labor rate (7:00 AM to 6:00 PM -Monday thru Friday) 3. Overtime labor rate: (Applies to labor after 6:00 PM Monday thru Friday and Saturdays.) 4. Sunday and Holiday Labor Rate:	Hourly  1 1 1 1	EA  HR HR HR HR	  \$50.00 \$100.00 \$135.00 \$175.00
3.		Repair Services Note: Certain products being proposed have flat repair rates associated with them. They are as follows:  Partial Warranty: - SSD2 Alarm Panel - TwinPack Plus Rectifier - SMPS 1000 Rectifier - AL 175 Controller  Out of Warranty: - SSD2 Alarm Panel - TwinPack Plus Rectifier - SMPS 1000 Rectifier - AL 175 Controller - MCU Controller - Flatpack Rectifier	Hourly	EA	\$ 100.00   \$ 100.00 \$ 200.00 \$ 155.00 \$ 175.00  \$ 300.00 \$ 450.00 \$ 225.00 \$ 250.00 \$ 130.00 \$ 250.00
4.		List other Equipment DC Power Systems, Model Flatpack, TwinPack Plus, MPSU 4000		EA	25%

**Eltek – Phase I**

Req. Item	Comm. Code	Description	Qty	Unit	Percentage off Mfg List Price
5.		<p>Model -Energys VRLA - sealed lead acid-20 yr design</p> <p>Warranty-Warranty is 48 months (full) from data of shipment. Additionally, the batteries contain a 16 year prorated warranty for a total of 20 years or 240 months.</p> <p>(** Note, batteries which shall be shipped from battery manufacturer's warehouse in Sumter, SC 29154, with freight charges prepaid and added to the invoice as a separate line item.)</p>	1	EA	32.5% discount off Eltek Energy's list price
6.		<p>anufacture Energys</p> <p>Model-Energys VRLA-sealed lead acid-10 yr design---</p> <p>Warranty-Warranty is 48 months (full) from date of shipment. Additionally, the batteries contain a six (6) year prorated warranty for a total of 10 years or 120 months.</p> <p>(** Note, batteries which shall be shipped from battery manufacturer's warehouse in North Haven, CT 06473, with freight charges prepaid and added to the invoice as a separate line item.)</p>	1	EA	32.5% discount off list Eltek Energy's list price
7.		<p>Recycle – Disposal Program.</p> <p>Disposal of installed base batteries (Phase 1 products) will be quoted separately and per site. Certification of Distruction shall be included in the cost.</p>			

Contractor: [General Dynamics SATCOM Technologies](#)

Contact: Dave Caswell

Alternate Contact: Ed Mick

Phone: (814) 238-2700 X406

(903) 381-4131

Fax: (814) 238-6213

(903) 295-1479

Email: [Dave.caswell@gdsatcom.com](mailto:Dave.caswell@gdsatcom.com)

[ed.mick@gdsatcom.com](mailto:ed.mick@gdsatcom.com)

Internet address: <http://www.gdsatcom.com/cte.html>

Web catalog address:

Federal ID No.: 56-1871899

Supplier No.: W1337

Total Contract worth:

Payment address: General Dynamics SATCOM  
Technologies, Inc.

Order General Dynamics  
placement 3750 W. Loop 281  
address: Longview, TX 75604

P.O. Box 601704  
Charlotte, NC 28260-1704

Customer Service: Ed Mick

Telephone: (903) 381-4131

Fax: (903) 295-1479

Ordering procedures:

Credit card acceptance: VISA, MasterCard, American Express

Minimum orders:

Delivery time: 30 days ARO

Payment terms: Net 30 (based upon approved credit)

Shipping destination: FCA Longview

Freight: Prepaid and included

Palletization:

Category

Equipment Line items

Link to bid Specifications

Link to Price Sheets

Awarded Phase(s) Phase I

CONTRACTOR WAREHOUSE Proposer(s) shall indicate below each warehouse location at which material, equipment or supplies will be stored.

ADDRESS: General Dynamics SATCOM  
Technologies, Inc.  
3750 W. Loop 281  
Longview, TX 75604

PHONE: (903) 381-4131  
CONTACT: Ed Mick

SERVICING: Indicate below the names and addresses of sales representatives and specific territories covered. Proposer's ability to service state agencies including local sales representation may be a factor in the award. Contractor must provide immediate attention to problem areas as they arise regardless of location. Submit an attached letter if necessary.

Authorized Sales Representatives

Name	Don Werner	Joe Stephens
Address	Wallace & Wallace 2600 California Ave, Ste F Monrovia CA 91016	Progress Marketing Group 9250 E. Costilla Ave., Suite 440 Englewood CO 80112
Telephone	626-305-8800 / Cell 818-429-9925	800-368-8165
Email	<a href="mailto:don.werner@prodigy.net">don.werner@prodigy.net</a>	<a href="mailto:joe@progressmarketing.net">joe@progressmarketing.net</a>
Territory Covered	S. California, S. Nevada, Arizona	E. Montana, Wyoming, E. Idaho, Utah, Colorado, New Mexico
Name	Ron Seitz	Ron Serrao
Address	Procomm Marketing 655 Lewelling Blvd #351 San Leandro CA 94579	The Sales Group PO Box 729 Volcano, HI 96785-0729
Telephone	510-383-9191	808 985-7545 / Cell 808-987-6313
Email	<a href="mailto:ProcommNCA@cs.com">ProcommNCA@cs.com</a>	<a href="mailto:ron@thesalesgroup.com">ron@thesalesgroup.com</a>
Territory Covered	N. California, N. Nevada	Hawaii
Name	Kevin Farley	Dana Hanford
Address	The Sales Group 311 SW 147 <sup>th</sup> Place Beaverton, OR 97006-7119	The Sales Group 7641 NE North Street Bainbridge Island WA 98110-1057
Telephone	503 638-6923/ Cell 503-805-1967	206-842-9076 Work 206-660-7147 Cell
Email	<a href="mailto:kevin@thesalesgroup.com">kevin@thesalesgroup.com</a>	<a href="mailto:dana@thesalesgroup.com">dana@thesalesgroup.com</a>
Territory Covered	Oregon, SW. Washington, SW Idaho	NW Washington, Alaska
Name	Darwin Niss	George Shoemaker
Address	Mink Marketing 22976 Greenland Elysian MN 56028	The Sales Group 4807 S Perry Street Spokane, WA 99223-6336
Telephone	507-420-8643	(509) 279-0682
Email	<a href="mailto:dniss@juno.com">dniss@juno.com</a>	<a href="mailto:george@thesalesgroup.com">george@thesalesgroup.com</a>
Territory Covered	N. Dakota, S Dakota, Minnesota	E Washington, W Montana

Name	Dan Noncek	
Address	Apogee Industries 1414 River Terrace McHenry, IL 60051	
Telephone	815- 344-4808	
Email	<a href="mailto:dan@apogeeindustriesinc.com">dan@apogeeindustriesinc.com</a>	
Territory Covered	Wisconsin	

**FACTORY AUTHORIZED SERVICE:**

Factory authorized service must be available in the destination area. List your service centers including name and address of each.

FIRM NAME:	Motorola/CTDI Test Equipment Service Center	General Dynamics SATCOM Technologies
ADDRESS:	2216 Galvin Drive	Communications Test Equipment
	Elgin, IL 60123	3750 W. Loop 281
		Longview, TX 75604

**SERVICE CENTERS**

General Dynamics SATCOM Technologies Inc. Communications Test Equipment has one authorized warranty repair facility in the United States. It has been in business for more than 20 years and provides unsurpassed service and rapid turn-around times. In some limited circumstances, General Dynamics will also perform service work at its Longview, Texas manufacturing facility

*Primary Contact for all General Dynamics test equipment products on this contract.*

Motorola/CTDI Test Equipment Service Center  
2216 Galvin Drive  
Elgin, Illinois 60123  
Phone: 800-323-6967  
Contact: Ricky Rivera

Factory trained personnel and years of qualifying service:

Barry Hendrix, 20 years                      Levi Jackson, 9 years  
Ricardo Rivera, 17 years                      Larry Huro, 19 years  
Barbara Brustowicz, 20 years

*Longview, Texas Manufacturing Facility*

General Dynamics SATCOM Technologies, Inc.  
3750 W. Loop 281  
Longview, TX 75604  
Phone: (903) 295-1480  
Contact: Dan Harrison (for service related issues)

Factory trained personnel and years of qualifying service:  
Chris Johnson - 3 years

Category 8 Equipment: P Test Equipment, Analog and Digital

2% From list price

Req. Item	Part # General Dynamics C4 Systems	Description	Qty	Unit	Unit List Price	Total Price
1.		R2670B Project 25 Radio Test Set	1 +	EA	15,631.00	
1.1.		Options For R2670B:	1 +			
	RLN4497A	Smartnet/Smartzone Testing Option	1 +	EA	5,831.00	
	CM714	P25 Trunking Radio Test Option (All Bands)	1 +	EA	1,519.00	
	N/A	Control Channel Logger (Not Available)				
		LSM Basic <i>(Included with CM714)</i>				
		Smartnet/Smartzone 900MHz <i>(Included in the RLN4497A)</i>				
	CM701	Hardware Module	1 +	EA	2,450.00	
	CM707	AES Encryption	1 +	EA	1,225.00	
	CM708	DES, DES-XL Encryption	1 +	EA	1,225.00	
	CM709	DVP-XL Encryption	1 +	EA	1,225.00	
	CM710	DVI-XL Encryption	1 +	EA	1,225.00	
	CM711	Securenet	1 +	EA	1,225.00	
	CM712	VSELP	1 +	EA	1,225.00	
	CM713B	Project 25 Conventional		EA	1,421.00	
	RLN4034A	C-Message Filter with 600 Ohm Meter Load	1 +	EA	490.00	
	RLN4361A	CCITT Filter with 600 Ohm Meter Load	1 +	EA	490.00	
	RLN4484A	Phase Modulation / Demodulation	1 +	EA	681.00	
	RLN4329A	IEEE 488.2 Remote Interface	1 +	EA	583.00	
	TBD	Autotest / Auto align for Motorola Radios				
	RVN5012B	Auto-test - XTS3000/ASTRO SABER	1+	EA	1,960.00	
	RVN5013B	Auto-test - XTS5000	1+	EA	1,960.00	
	RVN5016B	Auto-test - XTS3000/XTS5000/ASTRO SABER	1+	EA	3,724.00	
	RVN5024B	Auto-test - ASTRO SPECTRA	1+	EA	1,960.00	
	RVN5025B	Auto-test - ASTRO SPECTRA PLUS	1+	EA	1,960.00	
	RVN5026B	Auto-test - SPECTRA/SPECTRA PLUS Value Pack	1+	EA	3,724.00	
	RVN5027B	Auto-test Suite - RVN5016 plus RVN5026	1+	EA	7,252.00	
	TBD	Project 25 Phase 2				
		KVL Keyloader Option <i>(Included with the CM713)</i>				
	TBD	LSM Advanced / P25 - 2 Advanced				
		P25 Trunking VHF/UHF/ 700MHz <i>(Included in the CM714)</i>				
1.2.		Extended Warranties For R2670B				
	RLN4501A	3 Year Extended Warranty, Includes 2 Calibrations Total Warranty 3 years	1 +	EA	1,127.00	

Req. Item	Part # General Dynamics C4 Systems	Description	Qty	Unit	Unit List Price	Total Price
	RLN4502A	5 Year Extended Warranty, Includes 4 Calibrations Total Warranty 5 years	1 +	EA	1,936.00	
1.3.		Accessories For R2670B				
	6880309F17	Manual, R2670B (Supplied As Standard)	1 +	EA	N/C	
	RLN5237A	Maintenance Manual on CD Rom	1 +	EA	343.00	
	A001	Heavy Duty Transit Case	1 +	EA	583.00	
	A002	Heavy Duty Transit Case with wheels	1 +	EA	858.00	
	1580357B77	Case, Soft Padded Carrying	1 +	EA	171.50	
	5880345B96	RF Detector Probe, 50 Ohm Termination	1 +	EA	285.00	
	RTA4000A	Telescoping Antenna (Supplied As Standard)	1 +	EA	44.00	
	RPX4097A	DC Power Connector	1 +	EA	34.00	
	0982578B01	BNC RF 'T'	1 +	EA	16.00	

The prices added into this section are all at MSRP - added for information purposes only as a comparison.

Req. Item	Part #	Description	Qty	Unit	Unit Price, List price	Total Price
2.		R2670B Communications Service Monitor – USA				
2.1		Com-120C Communications Service Monitor W/ Tracking Generator, 30 kHz if Filter, 110V				
		Com-120C W/ Tracking Generator, 30 kHz if Filter, 220v				
	R2670B	Com-120C W/ Tracking Generator, 30 kHz if Filter, 0.01 Pm OCXO, 110v	1 +	EA	15,950.00	
		Com-120C W/ Tracking Generator, 30 kHz if Filter, 0.01 Pm OCXO, 220V				
		Com-120C W/ Tracking Generator, SSB Receive Filter, 110V (Not Available)				
		Com-120C W/ Tracking Generator, SSB Receive Filter, 220V (Not Available)				
		Com-120C W/ Tracking Generator, SSB Receive, 0.01 PPM OCXO, 110V (Not Available)				
		Com-120C W/ Tracking Generator, SSB Receive, 0.01 PPM OCXO, 220V (Not Available)				
2.1.		Options For R2670B				
	RPN4000A	Internal Rechargeable Battery (External)	1 +	EA	795.00	
		Data Generator/BER Meter (Not Available)				
		RCC Signalling (Not Available)				
		Digital/Analog Signalling				
	RLN4329A	IEEE-488.2	1 +	EA	595.00	
		Clear Channel LTR (Not Available)				

Contractor:

Harris Stratex Networks Operating Corporation

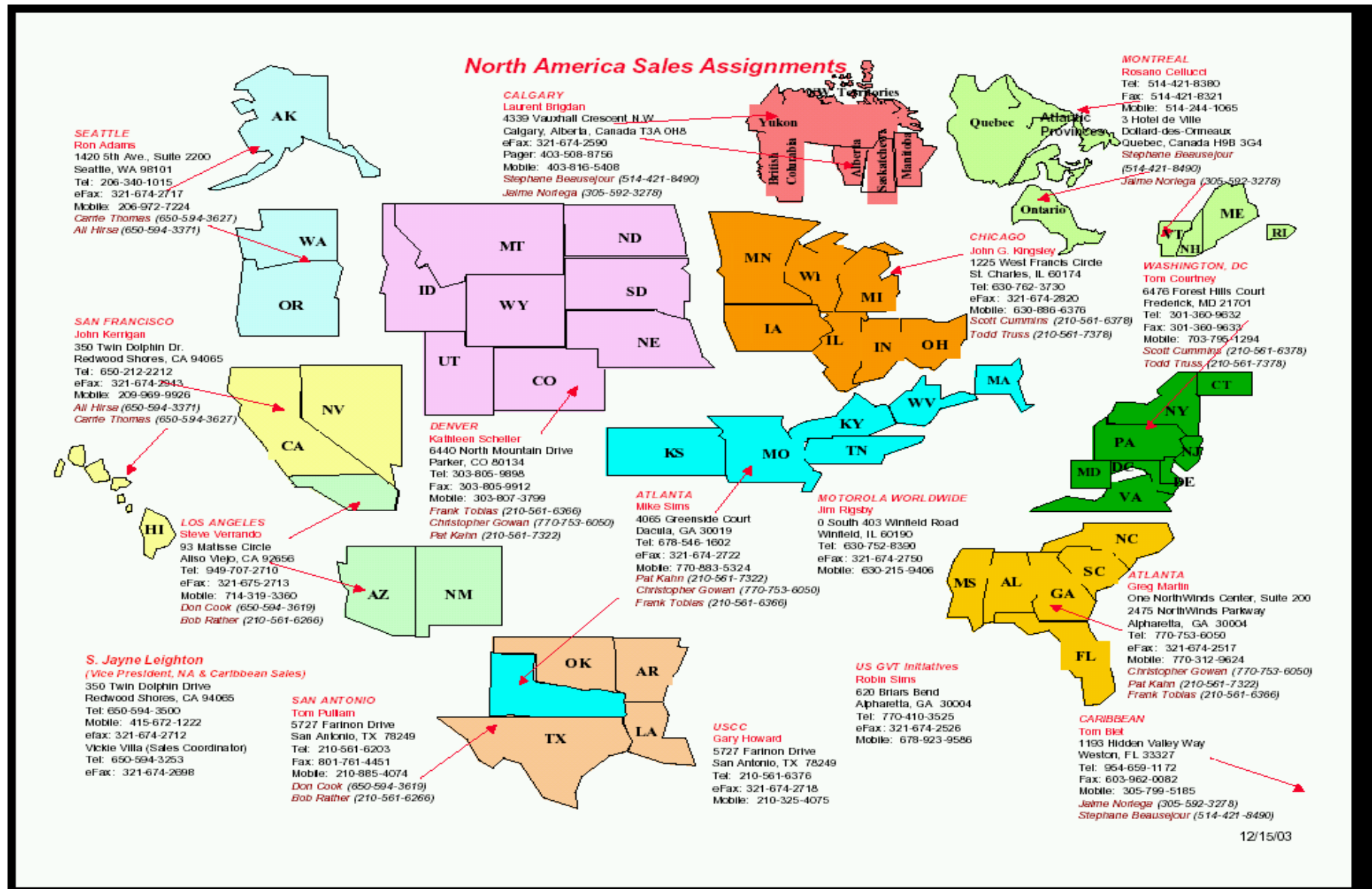
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Contact:	Laurent Brigdan	Alternate Contact:	John King
Phone:	206-340-1015		210-561-6282
Fax:	408-944-1120		408-944-2451
Email:	<a href="mailto:laurent.brigdan@hstx.com">laurent.brigdan@hstx.com</a>		<a href="mailto:john.king@hstx.com">john.king@hstx.com</a>
Internet address:	<a href="http://www.harris-stratex.com">www.harris-stratex.com</a>		
Web catalog address:			
Federal ID No.:	34-0276860		
Supplier No.:	W326		
Total Contract worth:	\$500,000,000.00		
Payment address:	637 Davis Drive Morrisville, NC 27560	Order placement address:	637 Davis Drive Morrisville, NC 27560
Customer Service:	Laurent Brigdan		
Telephone:	206-340-1015		
Fax:	321-674-2590		
Ordering procedures:			
Credit card acceptance:	Visa, MasterCard		
Minimum orders:			
Delivery time:	Days After Receipt of Order (ARO): Aurora: 30 days, Constellation, MegaStar, Galaxy, Microstar, TRuepoint: 60 days, SPR Series, TBD		
Payment terms:	0% 30 days		
Shipping destination:	Freight on Board (FOB) destination		
Freight:	Prepaid and included		
Palletization:	N/A		
Category	Category 5, Digital Microwave Radios		
Equipment Line items	Accessories at pass through pricing and added options at reduced prices see contractor		
Link to bid Specifications			
Awarded Phase(s)	Phase I & II		

State of Washington - Office of State Procurement Microwave Radio Bid Response Price Sheet			
Optional Items-Technical Services <sup>1</sup>			
Item	Description		Price (Per Price Book)
1.00	Frequency Coordination		
1.10	Frequency Bands-6 and 11 GHz		
1.11	First Frequency Pair		\$1,400.00
1.12	Additional Frequency pairs coordinated at the same time.		\$900.00
1.20	Frequency Bands-10, 18 and 23 GHz		
1.21	First Frequency Pair		\$1,300.00
1.22	Additional Frequency pairs coordinated at the same time.		\$850.00
1.30	Renewal Notices-Required to protect coordinated paths when license filings haven't been submitted.		
1.31	For first path		\$320.00
1.32	For each additional path at the same time		\$70.00
1.40	FCC License Preparation		
1.41	Per site location		\$400.00
1.50	FCC License Submittal Fee		

1.51	New License-per site location		\$480.00
1.52	Modification to License-per site location		\$295.00
1.60	Verbal Coordination Expedite		
1.61	For first path		\$850.00
1.62	For each additional path at the same time		\$200.00
2.00	Field Engineering		
2.10	Field Service Enginner (rate per man day)		\$1,200.00
2.20	Field Living Expenses (rate per calender day)		\$152.00
3.00	Installation Services (Per Man Day)		
3.10	EF&I Project Engineering		\$800.00
3.20	Program Management		\$1,126.00
3.30	Field Engineer		\$880.00
3.40	Network Engineering		\$1,100.00
3.50	Application Engineering		\$900.00
3.60	Transmission Engineering		\$1,100.00

3.70	Path Survey (for up to 3 paths; over 3 paths obtain quote)		\$2,700.00
3.80	Field Expenses		\$152.00
	<sup>1</sup> Please see Harris Price Book, Volume II for more details and conditions for above items		



## PHASE I

HARRIS MCD DISCOUNT SCHEDULE FOR WSCA PHASE I INCL. ACCESSORIES			
1	Constellation 6 GHz	8 x T1	59%
2	Constellation 6 GHz	16 x T1	59%
3	Constellation 6 GHz	28 x T1	60%
4	Constellation 6 GHz	OC3	61%
5	Constellation 6 GHz	3 DS3	60%
6	Constellation 10/11 GHz	8 x T1	60%
7	Constellation 10/11 GHz	16 x T1	60%
8	Constellation 11GHz	28 x T1	61%
9	Constellation 11 GHz	OC3	65%
10	Constellation 11 GHz	3 DS3	63%
11	MegaStar 155-6 GHz	OC-3	53%
12	MegaStar 155-11 GHz	OC-3	52%
13	MegaStar 155-6 GHz	3 DS3	54%
14	MegaStar 155-11 GHz	3 DS3	52%
(See Constellation above for OC3 and 3 DS3 radios. MegaStar available for system expansions)			
15	MicroStar 18 ext mux	28 x T1	50%
16	MicroStar 18 ext mux	28 x T1	50%
17	MicroStar 18 ext mux	16 x T1	50%
18	MicroStar 18 ext mux	16 x T1	50%
19	TRuepoint 18	28 & 16 x T1	Year 1 @ 50% Year 2 & 3 @ 59%
20	MicroStar 23 ext mux	28 x T1	44%
21	MicroStar 23 ext mux	28 x T1	44%
22	MicroStar 23 ext mux	16 x T1	44%
23	MicroStar 23 ext mux	16 x T1	44%
24	TRuepoint 23	28 & 16 x T1	Year 1 @ 44% Year 2 & 3 @ 53%

24	Galaxy 18 GHz	OC3	37%
25	Galaxy 23 GHz	OC3	36%
26	TRuepoint 18 GHz	OC3	Year 1 @ 37% Year 2 & 3 @ 46%
27	TRuepoint 23 GHz	OC3	Year 1 @ 36% Year 2 & 3 @ 45%
28	All other TRuepoint capacities, frequencies, & accessories		Year 1 @ 37% Year 2 & 3 @ 46%
29	All Eclipse/ Unity / IRU 600 capacities, frequencies & accessories		Year 1 @ 37% Year 2 & 3 @ 46%
30	Aurora 5.8, unprotected	1 X T1	47%
31	Aurora 5.8, unprotected	2 X T1	56%
32	StarView	NMS	10%
33	FarScan for Windows	SW	NO CHARGE
34	CAU remote alarm unit	32 alarms	\$1,920
35	MicroStar order wire		\$225
36	Constellation order wire		\$625
37	MegaStar order wire		\$625
38	Rack and fuse panel*		\$500
39	M13 mux		\$2,519
40	OEM equipment		Per price list attached
	** Space Diversity additional cost		

Frequency Band: 6 GHz					Radio Configuration: Hot Standby - Terminal					Date: 7/24/03
Capacity in T1s	Model Number Constellation	Radio List Price	Radio Discount	Mux Price (No Discount)	MW Equip (Radio w/ DS1 Mux) Price First Year3	MW Equip (Radio w/ DS1 Mux) Price Second/Third Year3, 6	No DS1 Multiplex4 (per Section 1.22 (4) of Phase 2	Orderwire Price	Alarm and Control Price	Total Line Price, 1st Year

							Tech Specs)			
DS34	RC306EE STPZ#B0 00B	\$58,000.00	58.00%		\$24,360.00	\$19,140.00	\$24,360.00	\$625.00	included	\$24,985.00
3xDS34	RY106EG TPV##000 0B	\$70,725.00	60.00%		\$28,290.00	\$21,924.75	\$28,290.00	\$625.00	included	\$28,915.00
2xDS3 + 28DS14	RY106EG TPW##00 00B	\$77,725.00	63.00%		\$28,758.25	2nd Year: \$28,758.25 3rd Year: \$21,763.00	\$28,758.25	\$625.00	included	\$29,383.25
4xDS34	RY106EG TPY#P00 00B	\$83,500.00	69.00%		\$25,885.00	2nd Year: \$25,885.00 3rd Year: \$18,370.00	\$25,885.00	\$625.00	included	\$26,510.00
3xDS3 + 28DS14	RY106EG TPZ##000 0B	\$90,500.00	71.00%		\$26,245.00	2nd Year: \$26,245.00 3rd year: \$18,100.00	\$26,245.00	\$625.00	included	\$26,870.00

## Notes:

<sup>1</sup>Power shall be measured at top of flange in dBm.

<sup>2</sup>Based on 10<sup>-3</sup> Bit Error Rate receiver sensitivity.

<sup>3</sup>Prices include a fully functional assembly with all standard industry interfaces for the signal payload, power connections, alarm I/O connections and any required data or service channel interfaces.

<sup>4</sup>This space is reserved for vendors to add either equipment configurations or additional options.

<sup>5</sup>Provide physical interfaces for radio bid, ie Fast Ethernet, T1, DS3 etc

<sup>6</sup>Second (2nd) year discounts do not apply to 2xDS3+28DS1, 4xDS3 and 3xDS3+28DS1 capacity radios. The quantity break discounts are only valid in year three (3).

This is an example of Phase I pricing

**JPS/RAYTHEON**Phase II  
Harris Corporation

Manufacturer	Freq. Band	Capacity in T1's	Part number	Total Price
<b>Hot Standby - Terminal – 6 GHz</b>				
Harris	6 GHz	28T	RC306EESTPH#B000B	\$26,425
Harris	6 GHz	SONET-OC3	RY106EGTPB##000B	\$27,544
<b>Non-Hot Standby - Terminal – 6 GHz</b>				
Harris	6 GHz	28T	RC306AESTPH#B000B	\$15,145
Harris	6 GHz	SONET-OC3	RY106AGTBP##000B	\$16,205
<b>Hot Standby - Terminal – 11 GHz</b>				
Harris	11 GHz	28T	RC311EESTPH#B030B	\$27,340
Harris	11 GHz	SONET-OC3	RY111EGTPB##1030b	\$28,118
<b>Non-Hot Standby - Terminal – 11 GHz</b>				
Harris	11 GHz	16T	RC311ACSTPE#B030B	\$14,538
Harris	11 GHz	28T	RC311AESTPH#B030B	\$15,562
Harris	11 GHz	SONET-OC3	RY111AGTPB##1030B	\$16,428
<b>Hot Standby - Terminal – 18 GHz</b>				
Harris	18 GHz	SONET-OC3	Galaxy RX118GZM209D#22	\$24,570
Harris	18 GHz	SONET OC3	Year 1 TRuepoint / Eclipse / Unity / IRU 600 HT152##DE2SS##00, ST15PPNP181####1A	\$24,570
Harris	18 GHz	SONET OC3	Year 2 & 3 TRuepoint / Eclipse / Unity / IRU 600 HT152##DE2SS##00, ST15PPNP181####1A	\$21,060
<b>Non-Hot Standby – Terminal – 18 GHz</b>				
Harris	18 GHz	28T	Microstar M/H RK118AZS####0B001 + M13 MUX	\$7,737
Harris	18 GHz	28T	Year 1 TRuepoint / Eclipse / Unity / IRU 600 HT152##AA2SS##00, ST15NNNN070#1##1A	\$7,737
Harris	18 GHz	28T	Year 2 & 3 TRuepoint / Eclipse / Unity / IRU 600 HT152##AA2SS##00, ST15NNNN070#1##1A	\$6,671
Harris	18 GHz	SONET-OC3	Galaxy RX118AZM209D#22	\$13,230
Harris	18 GHz	SONET OC3	Year 1 TRuepoint / Eclipse / Unity / IRU 600 HT152##DA2SS##00, ST15NNNN181####1A	\$13,230
Harris	18 GHz	SONET OC3	Year 2 & 3 TRuepoint / Eclipse / Unity / IRU 600 HT152##DA2SS##00, ST15NNNN181####1A	\$11,340
<b>Non-Hot Standby - Terminal – 23 GHz</b>				
Harris	23 GHz	28T	Microstar M RF223EZS####0B41#B + M13 MUX	\$8,616
Harris	23 GHz	28T	Year 1 TRuepoint / Eclipse / Unity / IRU 600 HT152##AA2SS##00, ST15NNNN070#1##1A	\$8,616
Harris	23 GHz	28T	Year 2 & 3 TRuepoint / Eclipse / Unity / IRU 600 HT152##AA2SS##00, ST15NNNN070#1##1A	\$7,523
Harris	23 GHz	SONET-OC3	Galaxy RB123ADS##56B40A	\$15,168
Harris	23 GHz	SONET-OC3	Year 1 TRuepoint / Eclipse / Unity / IRU 600 HT152##DA2SS##00, ST15NNNN181####1A	\$15,168
Harris	23 GHz	SONET-OC3	Year 2 & 3 TRuepoint / Eclipse / Unity / IRU 600 HT152##DA2SS##00, ST15NNNN181####1A	\$13,035

Phase II  
Harris Corporation

Hot Standby – Repeater – 6 GHz				
Harris	6 GHz	28T	RC306ECSAPEEB000B RC306ECSB####000A	\$48,975
Harris	6 GHz	SONET-OC3	RY106EGTPB##0000B RY106EGCPB##0000a	\$55,090
Non-Hot Standby – Repeater – 6 GHz				
Harris	6 GHz	28T	RC306ACSAPEEB000B RC306ACSB####000A	\$26,765
Hot Standby – Repeater – 11 GHz				
Harris	11GHz	16T	RC311ECSAPCCB030B RC311ECSB####030A	\$49,521
Harris	11GHz	28T	RC311ACSAPEEB030B RC311ACSB####030A	\$50,886
Harris	11GHz	SONET-OC3	RY111EGTPB#P0030b RY111EGCPB#P0030A	\$56,235
Non-Hot Standby – Repeater – 11 GHz				
Harris	11GHz	16T	RC311ACSAPEEB030B RC311ACSB####030A	\$26,307
Harris	11GHz	28T	RC311ACSAPEEB030B RC311ACSB####030A	\$27,330
Harris	11GHz	SONET-OC3	RY111AGTPB#P0030B RY111AGCPB#PB#0030a	\$32,855
Hot Standby – Repeater – 18 GHz				
Harris	18 GHz	SONET-OC3	Galaxy RX118GZM209D#20 RX118GZM209D#20	\$49,140
Harris	18 GHz	SONET-OC3	Year 1 TRuepoint / Eclipse / Unity / IRU 600 QTY 2 - HT152##DE2SS##00, ST15PPNP181####1A	\$49,140
Harris	18 GHz	SONET-OC3	Year 2 & 3 TRuepoint / Eclipse / Unity / IRU 600 QTY 2 - HT152##DE2SS##00, ST15PPNP181####1A	\$42,120
Non-Hot Standby – Repeater – 18 GHz				
Harris	18 GHz	28T	Microstar M/H RK118AZS####0B001 RK118AZS####0B001 + M13 MUX	\$13,887
Harris	18 GHz	28T	Year 1 TRuepoint / Eclipse / Unity / IRU 600 QTY 2 - HT152##AA2SS##00, ST15NNNN070#1##1A	\$13,887
Harris	18 GHz	28T	Year 2 & 3 TRuepoint / Eclipse / Unity / IRU 600 QTY 2 - HT152##AA2SS##00, ST15NNNN070#1##1A	\$11,754
Harris	18 GHz	SONET-OC3	Galaxy RX118AZM209D#22 RX118AZM209D#22	\$26,460
Harris	18 GHz	SONET-OC3	Year 1 TRuepoint / Eclipse / Unity / IRU 600 QTY 2 - HT152##DA2SS##00, ST15NNNN181####1A	\$26,460
Harris	18 GHz	SONET-OC3	Year 2 & 3 TRuepoint / Eclipse / Unity / IRU 600 QTY 2 - HT152##DA2SS##00, ST15NNNN181####1A	\$22,680
Non-Hot Standby - Repeater – 23 GHz				
Harris	23 GHz	28T	Microstar M RF223AZS####0B41#B RF223AZS####0B41#B + M13 MUX	\$15,645
Harris	23 GHz	28T	Year 1 TRuepoint / Eclipse / Unity / IRU 600 QTY 2 - HT152##AA2SS##00, ST15NNNN070#1##1A	\$15,645
Harris	23 GHz	28T	Year 2 & 3 TRuepoint / Eclipse / Unity / IRU 600 QTY 2 - HT152##AA2SS##00, ST15NNNN070#1##1A	\$13,458
Harris	23 GHz	SONET-OC3	Galaxy RB123ADS##56B40A RB123ADS##56B40A	\$30,336
Harris	23 GHz	SONET-OC3	Year 1 TRuepoint / Eclipse / Unity / IRU 600 QTY 2 - HT152##DA2SS##00, ST15NNNN181####1A	\$30,336
Harris	23 GHz	SONET-OC3	Year 2 & 3 TRuepoint / Eclipse / Unity / IRU 600	\$26,070

			QTY 2 - HT152##DA2SS##00, ST15NNNN181####1A	
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Icom American Inc.  
CONTRACTOR INFORMATION

Contractor:	<a href="#">Icom America, Inc.</a>		
Page number			
Contact:	Jim Alworth, East Regional Sales Manager	Alternate Contact:	Etsi Tamura
Address:	1250 Wishkah Avenue, Post Falls, ID 83854		Government Customer Service Supervisor
Phone:	(208) 773-6238		(425) 450-6092
Fax:	(208) 457-9437		(425) 450-6063
Mobile phone:	(509) 944-0450		<a href="mailto:EtsiTamura@IcomAmerica.com">EtsiTamura@IcomAmerica.com</a>
Email:	<a href="mailto:jimalworth@icomamerica.com">jimalworth@icomamerica.com</a>		
Internet address:	<a href="http://www.icomamerica.com">http://www.icomamerica.com</a>		
Phase I - Product Information and Pricing:	Land Mobile Division – 37.25% off List Price Aviation Division – 49.25% off List Price		
Phase II – Product Information and Pricing:	<a href="#">Aviation Division – 49.25% off List Price</a>		
Federal ID No.:	91-1083924		
Supplier No.:	W7651		
Total Contract worth:	\$500,000,000.00		
Payment address:	ICOM America, Inc. Dept. #407 PO Box 34935 Seattle, WA 98124	Order placement address:	ICOM America, Inc. 2380 116 <sup>th</sup> Avenue NE Bellevue, WA 98004
Customer Service:	Etsi Tamura		
Telephone:	425-450-6092		
Fax:	425-454-1509		
Ordering procedures:	Email, fax or call customer service		
Credit card acceptance:	Visa, MasterCard, American Express		
Minimum orders:	N/A		
Delivery time:	30-60 days After Receipt of Order (90 days on large orders)		
Payment terms:	3% - 30 days net 45		
Shipping destination:	Freight on Board (FOB) destination		
Freight:	Prepaid and included		
Palletization:	N/A		
Category	Category 2 Aircraft Band Radios		
Equipment Line items			
Support Services	\$71.25 per hour		
Repair Services	\$71.25 per hour		
Installation Services	\$33.25 per radio		
Programming Services	\$33.25 per radio		

Link to bid Specifications <http://www.ga.wa.gov/pca/bids/02702-Phase2-Category2.doc>  
 Awarded Phase(s) Phase I & II

Phase I & II - Equipment from our 4 divisions (Amateur, Avionics, Marine and Land Mobile) to WSCA and Non-WSCA states for Icom equipment.

WHEN END USER PURCHASES DIRECT FROM ICOM	FOR AVIONICS PRODUCTS SEE AUTHORIZED DEALERS:   WSCA Dealer List.pdf
Land Mobile Division 37.25% off List price  AVIONICS 49.25% off list price	Phase One & Phase Two Pricing:   ICOM Pricing April 08.pdf

SPECIFICATION

S

### AM Band Aircraft Radio

Description
One panel mounted VHF-AM Aeronautical Transceiver (VHF-1)
Two panel mounted VHF-AM Aeronautical Transceiver (VHF-1 and VHF-2)
Operating in the frequency band of 118.00 to 135.975 MHz
With a minimum of 760 channels in no greater than 25 Khz increments
Minimum of 5 watt carrier output power
Must be TSO certified

## CONTRACTOR INFORMATION

Contractor: [Raytheon JPS Communications](#)

Page number

Contact:	Alternate Contact:	Marcia Gatlin
Phone:		919 790 1011 X1540
Fax:		919 790 1456
Email:		<a href="mailto:marcia.gatlin@jps.com">marcia.gatlin@jps.com</a>

Internet address: [www.jps.com](http://www.jps.com)

Web catalog address:

Federal ID No.: 56-1621866

Supplier No.: W4181

Total Contract worth: \$500,000,000.00

Payment address: Raytheon/JPS  
5800 Departure Drive  
Raleigh, NC 27616

Order placement Raytheon/JPS  
address: 5800 Departure Drive  
Raleigh, NC 27616

Customer Service: Marica Gatlin

Telephone: 919 790 1011 X1540

Fax: 919 790 1456

Ordering procedures:

Credit card acceptance: Master Card, Visa

Minimum orders:

Delivery time: 30 days After Receipt of Order (ARO)

Payment terms: 0% 30 days

Shipping destination: Freight on Board (FOB) destination

Freight: Prepaid and included

Palletization: N/A

Category ACU1000

Equipment Line items

Link to bid Specifications <http://www.ga.wa.gov/pca/bids/02702-Phase2-Category4.doc>

Awarded Phase(s) Phase I & II

The purpose of this section is to purchase an audio switch unit(s) that has components that are interface modules, each designed to connect a specific communications medium (VHF/UHF radio, telephone or Satcom, HF radio, local operator, ect.), a control module, a power supply module, a chassis to accommodate the modules, and a backplane to route audio and control signals between modules.

#### Category 4, Specifications for ACU1000

Description
RDI-1/DSP-1/AP-1 RX Audio Input
Input Impedance: Balanced or unbalanced 600 ohms or 10k ohms.
Input level: -30 dBm to + 10 dBm, adjustable.
Frequency Responses: 100 Hz to 3200 kHz $\pm$ 2Db
RDI-1/DSP-1 TX Audio Output RDI-1/DSP-1/AP-1 TX Audio Output
Output Impedance: Balanced or unbalanced 600 ohms.
Output Level: -20 to +11 dBm, adjustable.
Frequency Response: 100 to 3200 Hz $\pm$ 2dB
RDI-1/DSP-1/AP-1 COR Input
Input Impedance: 47K ohm pullup to + 5V.
Polarity: Active low or high, selectable.
Threshold: + 2.5V nominal.
Protection: up to $\pm$ 100 VDC
RDI-1/DSP-1/AP-1 PTT Output
Output Type: Open drain, 47k ohm pullup to +5V.
Polarity: Active low or high, selectable.
Maximum Sink Current: 100 mA
Maximum Open Circuit Voltage: + 60 VDC
PSTN-1 Telephone Interface
Telephone Line Levels: Adjustable -24 dBm to 0 dBm in 3 dB steps.
Hybrid Type: DSP adaptive hybrid; -30 dB broadband balance.
Frequency Response: 100 Hz to 3200 Hz $\pm$ 2 dB
VOX Threshold: Selectable -19, -16, -13, and -10 dB relative to telephone line level.
VOX Hangtime: Selectable 0.5, 1.0, 1.5, and 2.0 seconds.
General/ Environmental
Control Processor Module Serial Port: RS-232 DCE connector (female DB0). Baud rates: 1200, 2400, 4800, or 9600, software selectable.
Power Supply Front Panel (PSM-1A): Power on/off Switch; AC on, DC on, +12 VDC, - 12 VDC LEDs.
Handset/Speaker Fount Panel (HSP-2): Speaker, Speaker on/off switch, 1/8 inch Headphone jack, Volume control, PTT LED, Fault LED, Handset jack, 3X4 Keypad.
Control Processor Front Panel (SPM-2): Master, Slave, and Fault LEDs.
Radio Interface Front Panel (RDI-1): Signal, COR, PTT, and Fault LEDs.
Tel Interface Front Panel (PSTN-1): Monitor, Ring, Connect, VOX, and Fault LEDs: L1 and L2 RJ11C Connectors.
Local Phone Front Panel (LP-1): Monitor, Ring, Off Hook, VOX, and Fault LEDs: L1 and L2 RJ11C Connectors.
Audio Processor Front Panel (AP-1): Bypass, PTT, Normal, Peak LEDs, Bypass switch.

Description
Rear Panel: DC fuse holder, AC filter module, connectors to interface up to 12 modules, Serial remote connector, Expansion connector.
AC Input Power: 115 to 230 VAC $\pm$ 15%, 47-63 Hz, 100 VA typical, 130 VA maximum.
DC Input Power: + 11 to + 15 VDC @ 5A nominal.
Size: 5.25 in H X 19 in W X 11 in D (13.3X48.3X28 cm)
Temperature: Operation: -20 to +60 degrees C. Storage: -40 to +85 degrees C.
Humidity: Up to 95% @ 55 degrees C.
Shock: MIL-STD-810D, method 516.3, procedure VI
Vibration: MIL-STD-810D, Method 514.3, Category I.
Provide product support for 7 years after last unit being purchase from this IFB.
Provide <u>Required</u> Firmware, Software updates or improvements at no cost for 7 years after last unit being purchase from this IFB.

## PRICE SHEETS

Req. Item	Comm. Code	Description	Total Price
1.		JPS ACU-1000 Required Equipment Bundle – Includes the ACU-1000 Card Cage, PSM-1A Power Supply Module, CPM-4 Control Processor Module, and HSP-2 Handset Speaker Module For Product Bid State: Mfg.: Raytheon/JPS  Brand/Model: 5961-220000	\$7,150.00
2.		PSM-1A Power Supply Module – 60W Power Supply, Spare Module for ACU-1000 Required Equipment Bundle  Brand/Model: 5951-813000	\$855.00
3.		CPM-4 Control Processor Module – Spare Module for ACU-1000 Required Equipment Bundle, provides a network interface for remote control and programming  Brand/Model: 5961-213000	\$1,280.00
4.		HSP-2 Handset Speaker Module – Spare Module for ACU-1000 Required Equipment Bundle  Brand/Model: 5962-314000	\$1,805.00
5.		ACU-1000 Chassis – Spare Chassis for ACU-1000 Required Equipment Bundle  Brand/Model: 5961-200000	\$3,210.00
6.		DSP-2 Radio/4-Wire Interface Module – used with the ACU-1000 and ACU-T, provides VoIP/RoIP compatibility  Brand/Model: 5961-818000	\$1,125.00

Req. Item	Comm. Code	Description	Total Price
7.		PSTN-1 Public Switched Telephone Interface Module – used with the ACU-1000 and ACU-T  Brand/Model: 5961-215000	\$1,125.00
8.		LP-1 Local Phone Set Module – used with the ACU-1000 and ACU-T  Brand/Model: 5961-217000	\$1,125.00
9.		RX AP-1 RX Audio Processor Module Assembly – used with the ACU-1000  Brand/Model: 5961-294001	\$1,125.00
10.		TX AP-1 TX Audio Processor Module Assembly – used with the ACU-1000  Brand/Model: 5961-294002	\$1,125.00
11.		ACU-T Tactical Package – AC/DC Powered, Includes Card Cage, HSP-4 and CPM-4 Modules, and Accessory Kit  Brand/Model: 5030-200000	\$5,980.00
12.		ACU-T Bundle Kit – Includes the ACU-T Tactical Package and Case Option Kit with Battery Five Interface Modules are already included in price of Bundle Kit. Select five modules in any combination from the following - DSP-2, PSTN-1, LP-1, RX AP-1, or TX AP-1 modules. Anything less is not a Bundle Kit.  Brand/Model: 5030-210000	\$11,605.00
13.		Primary/Secondary Option Cable – used with the ACU-1000  Brand/Model: 0314-037000	\$255.00
14.		NXU-2 Network eXtension Unit – Desktop, 110V AC to +12V DC Powered  Brand/Model: 5000-600000	\$1,500.00

SNV-12 Standard Voter Chassis

(Rack Mount, AC/DC Powered) Includes Card Cage, PSM-1A Power Supply Module, CIM-2a Console Interface Module, and CPM-1 Control Processor Module, PN#5951-800000 - \$4,4,11.20 each

SVM-2 Site Voter Module (up to 12 per chassis) PN# 5952-112000 \$792.00 each

#### SNV-12 Options

PTG-10 Pilot Tone Generator, PN#5970-900000 \$480.00 each

Expansion Cable to Second Chassis (up to 24 sites), PN#5951-896024 \$172.80 each

Expansion Cable to Second and Third Chassis (up to 36 sites), PN# 5951-896036 \$283.20 each

#### SNV-12 Chassis Spare Modules

PSM-1A Power Supply Module, PN# 5951-813000 \$955.20 each

CIM-2a Console Interface Module, PN#5041-100000 \$955.20 each

CPM-3 CPU Module, PN# 5061-100000 \$825.60 each

Extender Card Assembly, PN# 5951-707000 \$62.40 each

#### ARA-1 Analog Radio Adapter

(Desktop, 110VAC to +12V DC Powered, 115/220VAC 60/60Hz)) PN# 5060-800000 \$1,435.20 each

External equipment interface cables for the ARA-1 must be ordered separately.

ARA-1 5 Pack – Five ARA-1 Units PN#5060-820000 \$4,776.00

#### ACU-2000 Modular SIP VoIP Interconnect System

Rack Mount, AC/DC Powered, complete with ACU Controller Software

ACU-2000 IP Required Equipment Bundle (Includes the ACU-2000 IP Card Cage, PSM-1 IP Power Supply Module, CPM-6 Control Processor Module, and HSP-2 IP Handset Speaker Module, PN#5961-230000 \$10,555.20

#### ACU-2000 IP Interface Modules

SCM-1 Radio/SIP Interface Module, PN#5061-300000 \$2,006.40

SCM-2 Radio/SIP Interface Module, PN#5061-330000 \$2,006.40

DSP-2 IP Radio/4 Wire Interface Module, PN# 5961-838000 \$1,238.40

PSTN-1 IP Public Switched Telephone Interface Module, PN# 5961-235000 \$1,238.40

PSTN-2 IP Public Switched Telephone Interface Module, PN# 5050-330000 \$1,238.40

LP-1 IP Local Phone Set Module, PN#5961-237000 \$1,238.40

#### Spare Modules for ACU-2000 IP Required Equipment Bundle

ACU-2000 IP Chassis, PN# 5961-231000 \$3,235.20

PSM-1 IP Power Supply Module, PN#5951-833000 \$931.20

CPM-6 IP Control Processor Module, PN#5961-233000 \$4,795.20

HSP-2 IP Handset Speaker Module, PN# 5040-632200 \$1,968.00

#### ACU-M Interconnect System

ACU-M package – includes unit with 4 radio interfaces, 110/220V power supply and AC/DC power cords, PN# 5060-100000 \$4,123.20

Network Option – enables two VoIP channels and WAIS capability, PN#5060-109000 \$508.80

ACU-M package installed in a heavy duty carrying case, includes battery and a charger, PN#5060-107000 \$4,795.20

Carrying Case Option for ACU-M – includes battery backup and charger, PN# 5060-107500 \$931.20

Optional spare mounting bracket, PN#5060-100300 \$48.00

### **VOLUME DISCOUNT PROGRAM - PHASE 1 AND PHASE 2 ALL CATEGORIES**

The volume discount will be cumulative and over the term of the contract.

(Initial Term of Three [3] Years)

Additional Discount off Net Contract Unit Price	Cumulative Total Sales from:	Cumulative Total Sales to:
2 %	\$ 5,000,000	\$ 9,999,999
3 %	\$ 10,000,000	\$ 14,999,999
3 %	\$ 15,000,000	\$ 19,999,999
4 %	\$ 20,000,000	\$ 29,999,999

5 %	\$ 30,000,000	\$ 39,999,999
5 %	\$ 40,000,000	\$ 49,999,999
5 %	\$ 50,000,000	\$ 59,999,999
5 %	\$ 60,000,000	\$ 69,999,999
5 %	\$ 70,000,000	\$ 79,999,999
5 %	\$ 80,000,000	\$ 89,999,999
5 %	\$ 90,000,000	\$ 99,999,999
5 %	\$100,000,000	\$ 100,000,000+

**Kenwood****CONTRACTOR INFORMATION****Contractor:****Kenwood USA Corporation**

P.O. Box 22745

Long Beach, CA 90801-5745

**Page number****Contact:**

Barry Morris

**Alternate Contact:**

Cheryl Daly

**Phone:**

800-752-0986 x8280

800-752-0986 x4469

**Fax:**

310-761-8246

360-761-8246

**Email:**[bmorris@kenwoodusa.com](mailto:bmorris@kenwoodusa.com)[cdaly@kenwoodusa.com](mailto:cdaly@kenwoodusa.com)**Internet address:**<http://www.kenwood.net>**Web catalog address:****Federal ID No.:**

95-2948901

**Supplier No.:**

W6384

**Total Contract worth:**

\$500,000,000.00

**Payment address:****[See Listed Dealer  
Locations by State](#)****Order placement  
address:****[See Listed Dealer  
Locations by State](#)****Customer Service:**

Donetha Willis

**Telephone:**

800-752-0986 x8343

**Fax:**

310-761-8246

For a quotation or suggested retail pricing, contact one of the listed dealers below.



WSCA Dealers  
10.29.08 Revised.xls

**Ordering procedures:****Credit card acceptance:**

Visa

**Minimum orders:****Delivery time:**

days After Receipt of Order (ARO)

**Payment terms:****[2% 30 days](#)****Shipping destination:**

Freight on Board (FOB) destination

**Freight:****[Prepaid and included](#)****Palletization:**

N/A

**Category**

Category 1, Analog &amp; Digital Portables, Digital Trunked Mobiles.



WSCA Product  
10.13.08.xlsx

**Phase One Product line****Link to bid Specifications**

**Kenwood**

<b>Currently Installed Systems, upgrade equipment, radio equipment and accessories</b>	<b>30% off Manufacturer List Price</b>
<b>Support Services</b>	\$65.00 per hour
<b>Installation Services</b>	\$65.00 per hour
<b>Repair Services</b>	\$90.00 per hour
<b>Awarded Phase(s)</b>	Phase I & II



**Kenwood**  
**PHASE I PRICING**

Req. Item	Comm. Code	Description	Qty	Unit	Percentage off Mfg List Price
1.		Base Station	1-4	EA	30%
			5-10	EA	30%
			11+	EA	30%
2.		Repeater	1-4	EA	30%
			5-10	EA	30%
			11+	EA	30%
3.		Portable Radio	1-49	EA	30%
			50+	EA	30%
4.		Mobile Radio	1-20	EA	30%
			21-100	EA	30%
			101+	EA	30%
5.		Desktop	1-20	EA	30%
			21-100	EA	30%
			101+	EA	30%
6.		Console Unit	1-9	EA	
			10+	EA	
7.		Support Services	1	HR	\$65.00
8.		Installation Services	1	HR	\$65.00
9.		Repair Services	1	HR	\$90.00
10.		Accessories		EA	30%
11.		List other Equipment		EA	

**Kenwood**

## Phase I Equipment

TK-190	TK-980
TK-260	TK-981
TK-270	TK-2100
TK-272	TK-2140
TK-280	TK-2160
TK-290	TK-3100
TK-360	TK-3130
TK-370G	TK-3131
TK-372G	TK-3140
TK-373	TK-3160
TK-380	TK-5210
TK-390	TK-5710
TK-480	TK-6100
TK-481	TK-7150
TK-690 (H)	TK-8150
TK-760G (H)	TKB-720
TK-762G (H)	TKR-720
TK-790 (H)	TKR-750
TK-780	TKR-820
TK-860G (H)	TKR-850
TK-863G	KDS-100
TK-880	GPS
TK-890(H)	FLEETSYNC
TK-930	PASSPORT
TK-931	SYSTEMS

**Kenwood – Phase II****Kenwood Price Sheets**

ITEM	Mfg Name	Brand/Model#	Total Price
<b>Portable</b> Analog			
High VHF 136-174 Quality Category D	Kenwood	TK-280K / K2	\$498.50
UHF 450-470 Quality Category C	Kenwood	TK-380K	\$498.50

**Kenwood – Phase II****Portable Analog****High VHF 136-174 Quality Category D**

	<b>STANDARD SPECIFICATION</b>	<b>BIDDER'S SPECIFICATION</b>
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	2	250
Operational Bandwidth/Maximum Frequency Separation, MHz	38	38
Frequency Stability (-30 °C to + 60 °C), PPM	± 2.5	2.5
Channel Spacing, kHz	12.5 / 25 / 30	12.5 / 25 / 30
<b>TRANSMITTER</b>		
RF Power Output, Watts	1/5 selectable (Low/High)	1/5
Radiated Spurious & Harmonic Emission, dB	-60	-70
FM Noise, dB	-40	-45
Audio Distortion, % maximum	5	3
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-116	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-70/-60	-75/-65
Spurious and Image Rejection, dB	-70	-70
Intermodulation, dB	-70	-70
Speaker Audio Output, milliwatts	350	500
Audio Distortion, % maximum	5	5
Static BER sensitivity @ 5% referenced @ 12.5 KHZ	-	-
<b>Price FOB Destination freight prepaid &amp; included in price</b>		<b>\$498.50</b>
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		Kenwood USA
Prices are based on price list quoted above dated:		7/1/2003
Discount percentage represented by this price is		27%
Delivery - expressed in days after Receipt of Order		Less than 60 Days
Warranty Period - in excess of that required by the specifications (in days)		365 Days
% Tax required		0%
Components added to the above model to meet required specifications:		

**Kenwood – Phase II**

<b>REQUIRED OPTIONS</b>		
<b>Part Number</b>	<b>Description</b>	<b>Price</b>
KSC-19	Battery Charger/Vehicular Battery or Nominal 120 VAC, 60 HZ *	\$25.55
INCLUDED	Position Rotary Channel/Mode Select Switch Option	
INCLUDED	Low Battery Alert Tone Option	
TK-280K3 / K4	Dual Tone Multi Frequency encoder and Key Pad Option	\$24.09
KLH-75B / 76B	Leather Carrying Case Option	\$30.66
KMC-25	External Speaker/Microphone Option	\$67.16
<b>OPTIONAL OPTIONS</b>		
KVC-5	Vehicular Charger/Console Option	\$248.20
INCLUDED	Flashing EEPROM	
INCLUDED	Provision for Field Software Upgrade	
NO	Secure Encryption Option	
KVC-8A	RF Power Amplifiers Option	\$646.05
INCLUDED	Paging Decoder Option	
INCLUDED	Emergency Button/Switch Option	
INCLUDED	Programmable Button/Switch Option	
INCLUDED	Push-to-talk ID Transmission Option	
INCLUDED	Alphanumeric Display Option	

**Kenwood – Phase II  
Portable Analog**

**UHF 450-470 Quality Category C**

	<b>STANDARD SPECIFICATION</b>	<b>BIDDER'S SPECIFICATION</b>
<b>GENERAL</b>		
Number of Channels/Modes/Personalities	14	250
Operational Bandwidth/Maximum Frequency Separation, MHz	20	40
Frequency Stability (-30 °C to + 60 °C), PPM	± 2.5	± 2.5
Channel Spacing, kHz	12.5 / 25	12.5 / 25
<b>TRANSMITTER</b>		
RF Power Output, Watts	1/4 selectable (Low/High)	1/4 selectable (Low/High)
Radiated Spurious & Harmonic Emission, dB	-60	-70
FM Noise, dB	-40	-40
Audio Distortion, % maximum	5	3
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
<b>RECEIVER</b>		
Sensitivity, EIA 12 dB Sinad, dBm	-116	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-70/-60	-70/-62
Spurious and Image Rejection, dB	-70	-70
Intermodulation, dB	-70	-70
Speaker Audio Output, milliwatts	350	500
Audio Distortion, % maximum	5	5
Static BER sensitivity @ 5% referenced @ 12.5 KHZ	-	-
<b>Price FOB Destination freight prepaid &amp; included in price</b>		<b>\$498.50</b>
<b>OTHER INFORMATION:</b>		
Prices are based on Manufacturer's price list entitled:		Kenwood USA
Prices are based on price list quoted above dated:		7/1/2003
Discount percentage represented by this price is		27%
Delivery - expressed in days after Receipt of Order		Less than 60 Days
Warranty Period - in excess of that required by the specifications (in days)		365 Days
% Tax required		0%
Components added to the above model to meet required specifications:		

**Kenwood – Phase II**

<b>REQUIRED OPTIONS</b>		
<b>Part Number</b>	<b>Description</b>	<b>Price</b>
KSC-19	Battery Charger/Vehicular Battery or Nominal 120 VAC, 60 HZ *	\$25.55
INCLUDED	Position Rotary Channel/Mode Select Switch Option	
INCLUDED	Low Battery Alert Tone Option	
INCLUDED	Alphanumeric Display Option	
TK-380K4	Dual Tone Multi Frequency encoder and Key Pad Option	\$36.50
KLH-75B / 76B	Leather Carrying Case Option	\$30.66
KMC-25	External Speaker/Microphone Option	\$67.16
<b>OPTIONAL OPTIONS</b>		
KVC-5	Vehicular Charger/Console Option	\$248.20
INCLUDED	Flashing EEPROM	
INCLUDED	Provision for Field Software Upgrade	
NO	Secure Encryption Option	
KVC-8A	RF Power Amplifiers Option	\$646.05
INCLUDED	Paging Decoder Option	
INCLUDED	Emergency Button/Switch Option	
INCLUDED	Programmable Button/Switch Option	
INCLUDED	Push-to-talk ID Transmission Option	

**M/ACOM, Inc. – Phase II****CONTRACTOR INFORMATION**Contractor: **M/A COM**

Page number

Contact:	Ramona Brunswick	Alternate Contact:	Kit Eldredge	Alternate Contact:	Gary Palmer, Pres., Pacific Electronic, Inc. (360) 459-5212
Phone:	480-839-2500		425-269-1853		
Fax:	623 321-1442		480-839-2524		
Email:	<a href="mailto:brunswir@tycoelectronics.com">brunswir@tycoelectronics.com</a>	<a href="mailto:eldredgec@tycoelectronics.com">eldredgec@tycoelectronics.com</a>		5711 Lacey Blvd Suite 301, Lacey, WA 98503	

Corporate Contact:	Roger Boucher	Alternate Contact:	Cristal Huyghe
Phone:	434-455-9425		434-455-9451
Fax:			
Email:	<a href="mailto:boucherro@tycoelectronics.com">boucherro@tycoelectronics.com</a>	<a href="mailto:huyghec@tycoelectronics.com">huyghec@tycoelectronics.com</a>	
Internet address:	<a href="http://www.macom.com/">http://www.macom.com/</a>		

Web catalog address:

Federal ID No.: 65-0916944

Supplier No.: W2781

Total Contract worth: \$500,000,000.00

Payment address:	Dallas Lockbox M/A-COM, Inc. PO Box 121013 Dallas, TX 75312-1013	Atlanta Lockbox M/A-COM, Inc. DEPT AT 40432 Atlanta, GA 31192-0432	Order placement address: 950 W. Elliot Rd., #109 Tempe, AZ 85284
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Customer Service: Ramona Brunswick

Telephone: 480-839-2500

Fax: 480-839-2524

Ordering procedures: Call Sales Contact above with Purchase Order

Credit card acceptance: MasterCard, Visa

Delivery time: Approximately 4 to 6 weeks after receipt of required information and contingent upon on backlog at the time of order

Payment terms: 1% 10 days

Shipping destination: Freight on Board (FOB) destination

Freight: Prepaid and included

Palletization: N/A

Category: Category 1; Category 4, Gateway Devices.

Equipment Line items

Accessory Equipment: 26% discount off Manufacturer Standard Retail Price (manufactured products and accessories in category "N" or "C" within the M/A COM Wireless Systems, Product and Services Catalog).

Link to bid Specifications: <http://www.ga.wa.gov/pca/bids/02702-Phase2-Category4.doc>  
<http://www.ga.wa.gov/pca/bids/02702-Phase2-Category1.zip>

Link to Price Sheets

Awarded Phase(s) **Phase I & II**

For products not listed see the M/A Com sales contacts above

## TYCO ELECTRONICS REPRESENTATIVE WSCA RADIO MODELS

Revised 4/15/08

The following M/A-COM radio models are representative examples of the radios available on the WSCA contract. Contract users are requested to contact M/A-COM for other versions & frequency bands of each series of radio model.

MODEL NO.	DESCRIPTION	WSCA PRICE
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**VHF FREQUENCY BAND (136-174 MHZ):****P25 DIGITAL TRUNKED PORTABLE RADIOS:**

HT7150SH1X w/options: HTPT, HTPA7W, HTCH9E, HTNC1C	P7150, VHF, scan model with spare Battery, desk charger and antenna	\$2,694.34
MAEX-CH1XX w/options: MAEX-PKGPT, MAEX-NPA9X, MAEX-NC9T	P5450, VHF, scan model with spare Battery, desk charger and antenna	\$2,246.64
MAHM-SHTXX w/options MAHM-PA9P, MAHM-CH9E, MAHM-NC5W	P5150, VHF, scan model with spare Battery, desk charger and antenna	\$2,254.04
MAKS-SHNXX w/options MAKS-PKGPT, MAKS-NPA2E, MAKS-NCH9W, MAKS-NAN6C	P3350, VHF, scan model with spare Battery, desk charger and antenna	\$1,776.00

**P25 DIGITAL TRUNKED MOBILE RADIOS:**

MAHG-SHHXX w/options MAHG-PT, MAHG-CP7W, MAHG-MC7T, MAHG-ZN5Y	M7100, VHF, 110W, scan model with Microphone and remote mount	\$3,571.24
MAHG-SHMXX w/options MAHG-PT, MAHG-CP7W, MAHG-MC7T, MAHG-ZN5X	M7100, VHF, 50W, scan model with Microphone and remote mount	\$3,349.24
MAHG-SHMXX w/options MAHG-PT, MAHG-CP7U, MAHG-MC7T, MAHG-ZN5W	M7100, VHF, 50W, scan model with Microphone and front mount	\$3,234.54
MAKT-HSNXX w/options MAKT-PKGPT, MAKT-NCP9L, MAKT-NMC9B, MAKT-NAN6G	M3300, VHF, with microphone, antenna and remote mount	\$1,942.50

**P25 DIGITAL CONVENTIONAL PORTABLE RADIOS:**

HT7150SH1X w/options HTCA, HTPA9P, HTCH9E, HTNC1C	P7150, VHF, scan model with charger, antenna and spare battery	\$1,680.54
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MODEL NO.	DESCRIPTION	WSCA PRICE
MAEX-CH1XX w/options MAEX-PKGCA, MAEX-NPA9X, MAEX-NCH9T, MAEX-NNC1B	P5450, VHF, scan model with charger, antenna and spare battery	\$1,636.14
MAHM-SHVXX w/options MAHM-PA9P, MAHM-CH9E, MAHM-NC5W	P5150, VHF, scan model with charger, antenna and spare battery	\$1,713.84
MAKS-SHNXX w/options MAKS-PKGCA, MAKS-NPA2E, MAKS-NCH9W, MAKS-NAN6C	P3350, VHF, scan model with charger, antenna and spare battery	\$1,221.00

**P25 DIGITAL CONVENTIONAL MOBILE RADIOS:**

MAHG-SHHXX w/ options MAHG-CA, MAHG – CP7W, MAHG-MC7T, MAHG-ZN5Y	M7100, VHF, 110 watt, scan with Microphone and remote mount	\$2,501.94
MAHG-SHMXX w/ options MAHG-CA, MAHG – CP7W, MAHG-MC7T, MAHG-ZN5X	M7100, VHF, 50 watt, scan with Microphone and remote mount	\$2,279.94
MAHG-SHMXX w/ options MAHG-CA, MAHG – CP7U, MAHG-MC7T, MAHG-ZN5W	M7100, VHF, 50 watt, scan with Microphone and front mount	\$2,165.24
MAKT-HSNXX w/options MAKT-PKGCA, MAKT-NCP9L, MAKT-NMC9B, MAKT-NAN6G	M3300, VHF with microphone Antenna and remote mount	\$1,387.50

**P25 DIGITAL CONVENTIONAL BASE/REPEATER STATION RADIOS:**

SXHPNX w/options SXSG8H, SXSF3F, SXMN2B, SXMN9C SXMN2C, SXPS9R, SXCJ5E	MastrIII Station, VHF, 110 watts with Power supply, rack mount, RX Antenna cable	\$12,296.59
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**ANALOG CONVENTIONAL PORTABLE RADIOS:**

HT7150SH1X w/options HTPA9P, HTCH9E, HTNC1C	P7150, VHF, scan model with Charger, antenna and spare battery	\$1,421.54
GP605HTX w/options GPCH9F, GPNC5T, GPPA9G	Panther 605, VHF with Charger, antenna and spare battery	\$629.00
GP405HTX w/options GPCH9F, GPNC5T, GPPA9G	Panther 405 VHF with Charger, antenna and spare battery	\$543.90

MODEL NO.	DESCRIPTION	WSCA PRICE
<b>ANALOG CONVENTIONAL MOBILE RADIOS:</b>		
MAHG-SHHXX w/options MAHG-CP7W, MAHG-MC7T, MAHG-ZN5Y	M7100, VHF, 110 watts, scan with Microphone and remote mount	\$2,242.94
MAHG-SHMXX w/options MAHG-CP7W, MAHG-MC7T, MAHG-ZN5X	M7100, VHF, 50 watts, scan with Microphone and remote mount	\$2,020.94
MAHG-SHMXX w/options MAHG-CP7U, MAHG-MC7T, MAHG-ZN5W	M7100, VHF, 50 watts, scan with Microphone and front mount	\$1,906.24
KMHMCD w/option KMMC7H	KMC-300, VHF, 40 watts with microphone	\$747.40

**ANALOG CONVENTIONAL BASE/REPEATER STATION RADIOS:**

SXHMCX w/options SXMN2B, SXMN9C, SXMN2C, SXPS9R, SXCJ5E	MastrIII Station, VHF, 110 watts with Power supply, rack mount, RX Antenna cable	\$5,162.24
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**INTEROPERABILITY****WSCA Category 4, Interoperable Gateway Devices/IP Base Solutions**

M/A-COM's NetworkFirst solution was awarded preferred vendor status in the Western States Contracting Alliance (WSCA), under Category 4, Gateway Devices/IP Base Solutions for interoperability.

NetworkFirst uses IP technology to provide the fastest, most reliable path to interoperability among systems of all sizes and architectures, (any band, any brand). Just as word processing, accounting, management tools and dozens of other applications run on an enterprise network, NetworkFirst is compatible with any type of end-user equipment. NetworkFirst features an IP-based network that utilizes packet technology, while allowing existing radios to communicate with each other on one network.

**NetworkFirst product information and pricing is available through the WSCA sales contact above**

## TYCO ELECTRONICS REPRESENTATIVE WSCA RADIO MODELS

Revised 4/15/08

The following M/A-COM radio models are representative examples of the radios available on the WSCA contract. Contract users are requested to contact M/A-COM for other versions & frequency bands of each series of radio model.

MODEL NO.	DESCRIPTION	WSCA PRICE
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**UHF FREQUENCY BAND (450-470 MHZ):****P25 DIGITAL TRUNKED PORTABLE RADIOS:**

HT7150SU1X w/options: HTPT, HTPA9P, HTCH9E, HTNC1F	P7150, UHF, scan model with spare Battery, desk charger and antenna	\$2,786.84
MAEX-CU1XX w/options: MAEX-PKGPT, MAEX-NCH9T, MAEX-NNC1F	P5450, UHF, scan model with spare Battery, desk charger and antenna	\$2,246.64
MAHM-SUTXX w/options MAHM-PA9P, MAHM-CH9E, MAHM-NC1N	P5150, UHF, scan model with spare Battery, desk charger and antenna	\$2,254.04
MAKS-SUNXX w/options MAKS-PKGPT, MAKS-NPA2E, MAKS-NCH9W, MAKS-NAN6F	P3350, UHF, scan model with spare Battery, desk charger and antenna	\$1,770.82

**P25 DIGITAL TRUNKED MOBILE RADIOS:**

MAHG-SUHXX w/options MAHG-PT, MAHG-CP7W, MAHG-MC7T, MAHG-ZN5Y	M7100, UHF, 110W, scan model with Microphone and remote mount	\$3,571.24
MAHG-SUMXX w/options MAHG-PT, MAHG-CP7W, MAHG-MC7T, MAHG-ZN5X	M7100, UHF, 50W, scan model with Microphone and remote mount	\$3,349.24
MAHG-SUMXX w/options MAHG-PT, MAHG-CP7U, MAHG-MC7T, MAHG-ZN5W	M7100, UHF, 50W, scan model with Microphone and front mount	\$3,234.54
MAKT-USNXX w/options MAKT-PKGPT, MAKT-NCP9L, MAKT-NMC9B, MAKT-NAN6G	M3300, UHF, with microphone, antenna and remote mount	\$1,942.50

**P25 DIGITAL CONVENTIONAL PORTABLE RADIOS:**

HT7150SU1X w/options HTCA, HTPA9P, HTCH9E, HTNC1F	P7150, UHF, scan model with charger, antenna and spare battery	\$1,717.54
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MODEL NO.	DESCRIPTION	WSCA PRICE
MAEX-CU1XX w/options MAEX-PKGCA, MAEX-NPA9X, MAEX-NCH9T, MAEX-NNC1F	P5450, UHF, scan model with charger, antenna and spare battery	\$1,636.14
MAHM-SUVXX w/options MAHM-PA9P, MAHM-CH9E, MAHM-NC1N	P5150, UHF, scan model with charger, antenna and spare battery	\$1,713.84
MAKS-SUNXX w/options MAKS-PKGCA, MAKS-NPA2E, MAKS-NCH9W, MAKS-NAN6F	P3350, UHF, scan model with charger, antenna and spare battery	\$1,215.82

**P25 DIGITAL CONVENTIONAL MOBILE RADIOS:**

MAHG-SUHXX w/ options MAHG-CA, MAHG – CP7W, MAHG-MC7T, MAHG-ZN5Y	M7100, UHF, 110 watt, scan with Microphone and remote mount	\$2,501.94
MAHG-SUMXX w/ options MAHG-CA, MAHG – CP7W, MAHG-MC7T, MAHG-ZN5X	M7100, UHF, 50 watt, scan with Microphone and remote mount	\$2,279.94
MAHG-SUMXX w/ options MAHG-CA, MAHG – CP7U, MAHG-MC7T, MAHG-ZN5W	M7100, UHF, 50 watt, scan with Microphone and front mount	\$2,165.24
MAKT-USNXX w/options MAKT-PKGCA, MAKT-NCP9L, MAKT-NMC9B, MAKT-NAN6G	M3300, UHF with microphone Antenna and remote mount	\$1,387.50

**P25 DIGITAL CONVENTIONAL BASE/REPEATER STATION RADIOS:**

SXUPNX w/options SXSG8H, SXSF3F, SXMN2B, SXMN9C SXMN2C, SXPS9R, SXCL5X, SXCJ5E	MastrIII Station, UHF, 110 watts with Power supply, rack mount, RX Antenna cable	\$13,114.28
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**ANALOG CONVENTIONAL PORTABLE RADIOS:**

HT7150SU1X w/options HTPA9P, HTCH9E, HTNC1F	P7150, UHF, scan model with Charger, antenna and spare battery	\$1,458.54
GP605STX w/options GPCH9F, GPNC5V, GPPA9G	Panther 605, UHF with Charger, antenna and spare battery	\$636.40
GP405STX w/options GPCH9F, GPNC5V, GPPA9G	Panther 405 UHF with Charger, antenna and spare battery	\$547.60

MODEL NO.	DESCRIPTION	WSCA PRICE
<b>ANALOG CONVENTIONAL MOBILE RADIOS:</b>		
MAHG-SUHXX w/options MAHG-CP7W, MAHG-MC7T, MAHG-ZN5Y	M7100, UHF, 110 watts, scan with Microphone and remote mount	\$2,242.94
MAHG-SUMXX w/options MAHG-CP7W, MAHG-MC7T, MAHG-ZN5X	M7100, UHF, 50 watts, scan with Microphone and remote mount	\$2,020.94
MAHG-SUMXX w/options MAHG-CP7U, MAHG-MC7T, MAHG-ZN5W	M7100, UHF, 50 watts, scan with Microphone and front mount	\$1,906.24
KMUMCD w/option KMMC7H	KMC-300, UHF, 40 watts with microphone	\$699.30

**ANALOG CONVENTIONAL BASE/REPEATER STATION RADIOS:**

SXUMCX w/options SXMN2B, SXMN9C, SXMN2C, SXPS9R, SXCJ5E	MastrIII Station, UHF, 110 watts with Power supply, rack mount, RX Antenna cable	\$5,905.94
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**INTEROPERABILITY****WSCA Category 4, Interoperable Gateway Devices/IP Base Solutions**

M/A-COM's NetworkFirst solution was awarded preferred vendor status in the Western States Contracting Alliance (WSCA), under Category 4, Gateway Devices/IP Base Solutions for interoperability.

NetworkFirst uses IP technology to provide the fastest, most reliable path to interoperability among systems of all sizes and architectures, (any band, any brand). Just as word processing, accounting, management tools and dozens of other applications run on an enterprise network, NetworkFirst is compatible with any type of end-user equipment. NetworkFirst features an IP-based network that utilizes packet technology, while allowing existing radios to communicate with each other on one network.

**NetworkFirst product information and pricing is available through the WSCA sales contact above**

## TYCO ELECTRONICS REPRESENTATIVE WSCA RADIO MODELS

Revised 4/15/08

The following M/A-COM radio models are representative examples of the radios available on the WSCA contract. Contract users are requested to contact M/A-COM for other versions & frequency bands of each series of radio model.

MODEL NO.	DESCRIPTION	WSCA PRICE
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**800 MHz FREQUENCY BAND (806-870 MHZ):****P25 DIGITAL TRUNKED PORTABLE RADIOS:**

MAPT-S7HXX w/options MAPT-PT, MAPT-PA9P, MAPT-NC5X, MAPT-CH9E	P7250, 800 MHz scan model with spare Battery, desk charger and antenna	\$3,318.90
HT7150S81X w/options: HTPT, HTPA9P, HTCH9E, HTNC1K	P7150, 800 MHZ, scan model with spare Battery, desk charger and antenna	\$2,934.84
MAEX-C81XX w/options: MAEX-PKGPT, MAEX-NPA9X, MAEX-NC9T, MAEX-NNC1K	P5450, 800 MHZ, scan model with spare Battery, desk charger and antenna	\$2,246.64
MAHM-B7TXX w/options MAHM-PA9P, MAHM-CH9E, MAHM-NC5X	P5250, 800 MHZ, scan model with spare Battery, desk charger and antenna	\$2,601.10
MAHM-S8TXX w/options MAHM-PA9P, MAHM-CH9E, MAHM-NC1K	P5150, 800 MHZ, scan model with spare Battery, desk charger and antenna	\$2,217.04

**P25 DIGITAL TRUNKED MOBILE RADIOS:**

MAMV-FDLXX w/options MAMV-PT, MAMV-NZN7W MAMV-CP9E, MAMV-MC7Z, MAMV-AN3J	M7200, 700/800 MHZ, full duplex w/GPS Microphone, antenna, remote mount	\$43051.50
MAHG-S8MXX w/options MAHG-PT, MAHG-CP7W, MAHG-MC7T, MAHG-ZN5X	M7100, 800 MHZ, 35W, scan model with Microphone and remote mount	\$3,201.24
MAHG-S8MXX w/options MAHG-PT, MAHG-CP7U, MAHG-MC7T, MAHG-ZN5W	M7100, 800 MHZ, 35W, scan model with Microphone and front mount	\$3,086.54

**P25 DIGITAL CONVENTIONAL PORTABLE RADIOS:**

MAPT-S7HXX w/options MAPT-CA, MAPT-PA9P, MAPT-NC5X, MAPT-CH9E	P7250, 800 MHZ, scan model with charger, antenna and spare battery	\$2,249.60
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MODEL NO.	DESCRIPTION	WCSA PRICE
HT7150S81X w/options HTCA, HTPA9P, HTCH9E, HTNC1K	P7150, 800 MHZ, scan model with charger, antenna and spare battery	\$1,865.54
MAEX-C81XX w/options MAEX-PKGCA, MAEX-NPA9X, MAEX-NCH9T, MAEX-NNC1K	P5450, 800 MHZ, scan model with charger, antenna and spare battery	\$1,636.14
MAHM-S8VXX w/options MAHM-PA9P, MAHM-CH9E, MAHM-NC1K	P5150, 800 MHZ, scan model with charger, antenna and spare battery	\$1,676.84

**P25 DIGITAL CONVENTIONAL MOBILE RADIOS:**

MAMV-FDLXX w/options MAMV-CA, MAMV-NZN7W,	M7200 700/800 MHz, full duplex with Microphone and remote mount	\$3,359.60
MAHG-S8MXX w/ options MAHG-CA, MAHG – CP7W, MAHG-MC7T, MAHG-ZN5X	M7100, 800 MHZ, 35 watt, scan with Microphone and remote mount	\$2,131.94
MAHG-S8MXX w/ options MAHG-CA, MAHG – CP7U, MAHG-MC7T, MAHG-ZN5W	M7100, 800 MHZ, 35 watt, scan with Microphone and remote mount	\$2,017.24

**P25 DIGITAL CONVENTIONAL BASE/REPEATER STATION RADIOS:**

SX8PNX w/options SXSG8H, SXSF3F, SXMN2B, SXMN9C SXMN2C, SXPS9R, SXCL5X, SXCJ5E	MastrIII Station, 800 MHZ, 100 watts with Power supply, rack mount, RX Antenna cable	\$13,114.28
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**ANALOG CONVENTIONAL PORTABLE RADIOS:**

MAPT-S7XX w/options MAPT-PA9P, MAPT-NC5X, MAPT-CH9E	P7250, 800 MHZ, scan model with Charger, antenna and spare battery	\$1,990.60
HT7150S81X w/options HTPA9P, HTCH9E, HTNC1K	P7150, 800 MHZ, scan model with Charger, antenna and spare battery	\$1,606.54

**ANALOG CONVENTIONAL MOBILE RADIOS:**

MAMV-FDLXX w/options MAMV-NZN7W, MAMV-CP9E, MAMV-MC7Z	M7200, 700/800 MHz, full duplex with Microphone and remote mount	\$2,730.60
MAHG-S8MXX w/options MAHG-CP7W, MAHG-MC7T, MAHG-ZN5x	M7100, 800 MHZ, 35 watts, scan with Microphone and remote mount	\$1,872.94
MAHG-S8MXX w/options MAHG-CP7U, MAHG-MC7T, MAHG-ZN5W	M7100, 800 MHZ, 35 watts, scan with Microphone and front mount	\$1,758.24

MODEL NO.	DESCRIPTION	WSCA PRICE
<b>ANALOG CONVENTIONAL BASE/REPEATER STATION RADIOS:</b>		
SX8MCX w/options SXMN2B, SXMN9C, SXMN2C, SXPS9R, SXCJ5E	MastrIII Station, 800 MHZ, 100 watts with Power supply, rack mount, RX Antenna cable	\$8,203.64

## **INTEROPERABILITY**

### **WSCA Category 4, Interoperable Gateway Devices/IP Base Solutions**

M/A-COM's NetworkFirst solution was awarded preferred vendor status in the Western States Contracting Alliance (WSCA), under Category 4, Gateway Devices/IP Base Solutions for interoperability.

NetworkFirst uses IP technology to provide the fastest, most reliable path to interoperability among systems of all sizes and architectures, (any band, any brand). Just as word processing, accounting, management tools and dozens of other applications run on an enterprise network, NetworkFirst is compatible with any type of end-user equipment. NetworkFirst features an IP-based network that utilizes packet technology, while allowing existing radios to communicate with each other on one network.

NetworkFirst product information and pricing is available through the WSCA sales contact above

**Motorola**Contractor: [Motorola](#)

Note: Correspondence must be addressed to Motorola, C/O Sales Contact.

Contact: Luis R. Alba

Contract Legal

Robert Gonzales

Issues Contact:

Phone: [\(425\) 896-2356](#)

(714) 238-2030

[Mobile: \(425\) 301-7398](#)Fax: [Fax: 425.896.2301](#)Email: [luisalba@motorola.com](mailto:luisalba@motorola.com)[Robert.gonzales@motorola.com](mailto:Robert.gonzales@motorola.com)Internet address: [www.motorola.com](http://www.motorola.com)Web catalog address: [http://www.motorola.com/governmentandenterprise/northamerica/en-us/solution.aspx?navigationpath=id\\_804i](http://www.motorola.com/governmentandenterprise/northamerica/en-us/solution.aspx?navigationpath=id_804i)

Federal ID No.: 36-1115800

Supplier No.: W13573

Total Contract worth: \$500,000,000.00

Payment address: Customers in participating states will be requested to remit their payments to the following address:

Motorola, Inc. 13108 Collections Center Drive, Chicago, IL 60693

Payment address: Motorola, Inc.

Order placement

Motorola, Inc.

For Montana

PO Box 404059

address:

18200 NE Union Hill Rd.

Atlanta, GA 30384-4059

Suite 200

Redmond, WA 98052

Customer Service: VACANT

Telephone: [425.896.2356](#)

Fax: 425-896-2301

Ordering procedures:

Credit card acceptance: Visa, MasterCard

Minimum orders:

Delivery time: Please refer to individual category for delivery schedule, which varies by product and category bid.

Payment terms: 0% 30 days

Shipping destination: Freight on Board (FOB) destination

Freight: Prepaid and included

Palletization: N/A

Category

Equipment Line items

Link to bid Specifications

**Motorola**[Link to Price Sheets](#)

Awarded Phase(s) Phase I

## Glossary Added to Motorola Phase I Award

This Glossary is incorporated in the WSCA Contract and contains definitions of terms contained therein and will supersede and prevail over any contrary terms or definitions in the contract.

Occurrence. An occurrence, as referenced in Section II, Paragraph 38, Limitation of Liability” means only a single sales transaction, including both a purchase of equipment only and a purchase of a system. It does not mean or refer to a claim by a purchaser, end user, or any other entity.

Total Liability. Contractor’s total liability under the contract shall not exceed the following amounts:

1. FOR SYSTEM PURCHASES. THE GREATER OF \$10,000,000 OR THE CONTRACT PRICE OF THE SYSTEM.
2. . FOR EQUIPMENT ONLY PURCHASES. THE LIMITATION OF LIABILITY PROVISION SHALL APPLY NOTWITHSTANDING ANY CONTRARY PROVISION IN THIS AGREEMENT OR ANY ATTACHMENTS, ADDENDUMS, OR EXHIBITS. EXCEPT FOR PERSONAL INJURY OR DEATH, CONTRACTOR’S LIABILITY ARISING FROM THIS CONTRACT WILL BE LIMITED TO THE DIRECT DAMAGES RECOVERABLE UNDER LAW; AND LIMITED TO A TOTAL OF \$10,000,000 (TEN MILLION DOLLARS) OF LIABILITY WITHIN EACH PARTICIPATING STATE, OR THE TOTAL MOTOROLA WSCA CONTRACT 02702 YEARLY (JAN. TO DEC.) SALES IN THE YEAR IN WHICH THE LIABILITY OCCURRED, WHICHEVER IS GREATER.  
EACH STATE WITH WHOM MOTOROLA HAS SIGNED A PARTICIPATING ADDENDUM IS IDENTIFIED AS A PARTICIPATING STATE.

DIRECT DAMAGES. DIRECT DAMAGES, AS REFERENCED IN SECTION II, PARAGRAPH 38, LIMITATION OF LIABILITY MEANS ACTUAL DIRECT DAMAGES INCURRED AND DOES NOT INCLUDE SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES.

**Motorola**WSCA states. PRICING AND ADJUSTMENTS

Unless otherwise stipulated, all bids must include unit prices and extensions where applicable and be otherwise in the format requested. This will be the baseline pricing to determine offerors score and baseline price level. The State of Washington and participating WSCA states are also looking for additional volume based pricing for consideration. The volume discount program offered will be evaluated using price breaks identified in the Price Sheets per category. If no price break are given by a Proposer(s), then the highest discount rate offer by the Proposer(s), will be used to compare that proposal with Proposer's that offer a volume discount program.

All bid pricing is to be FOB Destination, freight prepaid and included, for any destination within the State of Washington and participating WSCA states, unless stipulated differently in the Communication Equipment Category specification and price sheet section.

Pricing shall remain firm and fixed for the initial 12-months of the contract, unless defined and approved in a Participating Addendum

Adjustments in pricing will be considered after firm fixed price period on a pass through basis only. A minimum of 60 calendar days advance written notice of price increase is required which is to be accompanied by sufficient documentation to justify the requested increase. Documentation must be based on United States published indices such as the Producer Price Index. Acceptance will be at the discretion of the State Procurement Officer and shall not produce a higher profit margin than that established on the original contract pricing. Approved price adjustments shall remain unchanged for at least 365 calendar days thereafter.

During the term of this contract, should the contractor enter into pricing agreements with other customers providing greater benefits or lower pricing, contractor shall immediately amend the state contract to provide similar pricing to the state if the contract with other customers offers similar usage quantities, and similar conditions impacting pricing. Contractor shall immediately notify the state of any such contracts entered into by contractor. When the state is comparing different lower contract pricing the management fee will be deducted from the WSCA contract.

*This provision applies only within WSCA PARTICIPATING STATES (as defined in this document, above) and shall not apply to existing contracts, system packages, or one time equipment purchases, services, or international sales. For purposes of this section, the definition of 'customers' shall not include Contractor's dealers, distributors and resellers, or sales to federal government.*

**Motorola****TECHNICAL ADVANCES/UPGRADES**

During the service life of the equipment, the contractor agrees to install, at no additional cost to the end user, all manufacturers' required retrofit upgrades within 90 days of the date the upgrade is introduced by the manufacturer. Required retrofits are all retrofits that are required to keep the equipment operating and functioning as intended at the time of purchase. *"Service Life" as used in this section shall be five years from final inspection and acceptance by the purchaser. This does not including periodic software releases which are intended to offer new features or enhancements not available at the time of original purchase.*

**NEW SYSTEM SOFTWARE AND FIRMWARE UPDATE**

Provide Required Firmware, Software updates at no cost for 5 years after last unit being purchased from this RFP. . Required firmware and software updates are all updates that are required to keep the equipment operating and functioning as intended at the time of purchase. *Manufacturers are not responsible for update installation costs. Proposer's shall submit a copy of their software licensing agreement with their proposal. This does not including periodic software releases which are intended to offer new features or enhancements not available at the time of original purchase.*

**SOFTWARE LICENSE:**

Customer and any Purchasing Entity or End User purchasing from this Agreement hereby accept and agree to abide by all of the terms and restrictions of the Motorola Software License Agreement attached to Motorola's bid and incorporated into this agreement, when purchasing or using any Motorola Software or firmware. Any Non-Motorola Software and Open Source Software is licensed to Customer in accordance with the standard license, terms, and restrictions of the copyright owner on the Effective Date.

**SYSTEM SALES:**

If a Purchasing Entity intends to purchase a system using pricing from the WSCA contract, Motorola will prepare a proposal that includes the technical, contractual, and implementation documents that are appropriate for that system. Any system sale will be subject to the specifications of the technical and implementation documents and to the terms of the communications system agreement and its exhibits or other applicable contract documents.

**SUPPORT SERVICES, MAINTENANCE SERVICES, AND PROFESSIONAL SERVICES:**

If a Purchasing Entity intends to purchase services from Motorola, the sale of services will be subject to the terms of the appropriate Motorola maintenance, professional services, or other standard agreement appropriate to the type of services being sold, together with the technical and implementation exhibits applicable to the services.

**WARRANTY(IES)**

Proposer(s) will submit a copy of every warranty as an attachment to bid and items delivered under this contract will also be accompanied by a copy of the applicable warranties. Unless otherwise specified, the full parts and labor warranty period shall be for a minimum period of one (1) year after receipt and acceptance of materials or equipment by the Purchaser. *All warranties supplied by the manufacturer shall be consistent with the provisions of the UCC, chapter 62A RCW unless otherwise specified in part 3, equipment Specifications.* All materials or equipment provided shall be new, or refurbished and manufacturer certified, of the latest model or design and of recent manufacture. All tower parts must be new and of the latest design.

Successful contractor(s) shall provide product support (*required to keep equipment operating and functioning as intended at the time of purchase*) for 7-5 years after last unit being purchased from this RFP.

CONTRACTOR DISCLAIMS ALL OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

**Motorola**

*In the event of conflict between contract terms and conditions and any warranty submitted by the contractor, to afford the state maximum benefits, the contract terms and conditions shall prevail.*

WSCA and Motorola agree as follows:

Section 9 of Part III, "Special Terms and Conditions," of WSCA RFP No. 02702 is amended by inserting the words "parts, or accessories" in the second-to-last sentence of the section. As amended the sentence now reads:

This provision applies only within WSCA Participating States (as defined in the document above) and shall not apply to existing contracts, system packages, one time equipment purchases, services, international sales, parts, or accessories.

Contract users may purchase accessories for any listed Motorola radio subscriber unit. Available accessories are listed on the Motorola Electronic Catalog pages associated with each subscriber unit that is available through the contract.

If accessories listed on the Electronic Catalog pages are purchased at the time of purchase of a radio unit, the discount level associated with the radio will apply to the purchased accessories.

If accessories are purchased on a stand-alone basis from the Electronic Catalog pages available on the contract, a 20% discount shall apply to any accessory purchase.

Amendments Effective July 1, 2006:

Effective July 1, 2006, Motorola has reduced the prices on all applicable products available through the WSCA Contract by three percent (3%). This price reduction is reflected in the WSCA RFP DISCOUNT MATRIX dated July 1, 2006, attached below and in the list of Representative Radio Models, attached below. No further volume discounts shall apply to Motorola products available on the WSCA Public Safety Radio Contract. Any reference to "volume discount" or "cumulative discount" is struck.

When calculating the price of a product purchased through the WSCA contract, Motorola and WSCA contract users shall use Motorola's then-current price book and apply the discount level indicated in the WSCA RFP DISCOUNT MATRIX dated July 1, 2006, which is attached below. In order to conform with the parties' intent to replace the pricing quoted by Motorola in its 2003 RFP 02802 response and ensuing contract with Motorola's current pricing, which shall be updated at least annually, any reference in WSCA RFP or Contract 02702, as amended, to the pricing quoted by Motorola in its 2003 RFP Response shall be replaced with an appropriate reference to Motorola's current price list.

Effective, July 1, 2006, the general WSCA administrative fee for purchases made from the WSCA Public Safety Radio Contract shall be lowered from one and one-half percent (1.5%) to one-half percent (.5%). Administrative fees charged by Participating States shall not be affected by this reduction. The total administrative fee charged by the State of Washington shall be one and one-half percent (1.5%), which includes both the WSCA administrative fee and the State of Washington administrative fee.

**Motorola****MOTOROLA WESTERN DIVISION SALES OFFICES**

WA08 – Redmond, WA 18200 NE Union Hill Rd. Suite 200 Redmond, WA 98052 425-896-2340 fax 425 896-2302	OR02 - Lake Oswego, OR 4900 S.W. Meadows Rd, #475  Lake Oswego, OR 97035 No main phone number. fax 503 697-4670	AZ43 - Phoenix, AZ 2900 South Diablo Wy.  Tempe, AZ 85282 602 271-7500 fax 602 438-1608
CA25 - San Diego, CA (Div HQ) 6420 Sequence Drive San Diego, CA 92121 800 445-3620 toll-free 858 578-2222 direct	CO01 - Englewood, CO 9800 Mount Pyramid Ct. Suite 200 Englewood, CO 80112 303 689-2800 fax 303 689-2900	TX48 Dallas, TX 2410 Luna Road, Ste 132 Carrollton, TX 75006 972 277-4600 or 800 635-0200 fax 972 277-4611
TX09 - Houston, TX 1140 Cypress Station Suite 300 Houston, TX 77090 281 537-3600 fax 281 537-3617	TX32 - Austin, TX 7700 W. Parmer Lane Bldg., B-PL34 Austin, TX 78729 512 996-6974	CA08 - Los Angeles, CA 312 E. 1st. Street, Suite 520 Los Angeles, CA 90012 No main phone number. fax 213 628-2470
CA18 - Van Nuys, CA 7720 Sepulveda Blvd., Suite B Van Nuys, CA 92450 818 786-1092 fax 818 786-1294	CA78 - Motorola FSO California 10061 Riverside Dr., PMB 1046 Toluca Lake, CA 91602 818 843-3068 fax (same as above)	CA36 - Irvine, CA 1900 Main Street, Suite 300 Irvine, CA 92614 949 399-4000 fax 949 437-4240
CA57 - Irvine, CA (warehouse) 17835 Skypark Circle, Suite C Irvine, CA 92614 949 442-1644 fax 949 474-0196	NM01 - Albuquerque, NM 2501 San Pedro N.E., Suite 202 Albuquerque, NM 87110 505 875-1999 fax 505 875-1888	CA69 - Mountain View, CA 805 E. Middlefield Rd Mountain View, CA 94043 650 318-3200 fax 650-318-3310
Las Vegas, Nevada PO Box 98098 Las Vegas, Nevada 89193 775-853-7862 fax 775-853-0924	CA67 - Los Angeles, CA 725 S Figueroa Ave, Suite 1870 Los Angeles, CA 90017 213 362-6726 fax 213 627-3379	Shawnee, OK 2309 Troon Circle Shawnee, OK 74801 405-395-9448 fax 405-878-6841
Layton, Utah PMB#194 2146 North Main Street, Suite 530 Layton, Utah 84051 801-571-7649 fax 801-571-7258	Billings, Montana 4603 Alkali Creek Road Billings, MT 59106 406-245-3309 fax 406-245-1567	Anchorage, Alaska PO Box 230882 Anchorage, AK 99532 907-261-5170 fax 907-346-4303
Boise, Idaho 11548 W. Rader Dr. Boise, ID 83713 208-377-2080 fax 208-377-2085		

**Motorola****MOTOROLA REPRESENTATIVE WSCA CONTRACT RADIO MODELS**

Revised 10/20/06

The following Motorola radio models are representative examples of the radios available on the WSCA contract. Contract users are requested to contact Motorola for other versions & frequency bands of each series of radio model. The WSCA RFP required Manufacturer price pages for the complete line of Motorola radios available on the WSCA contract are on file with WSCA Purchasing. The representative prices listed will be higher in states that charge an administrative fee.

The various types of Motorola radios are listed by frequency band first, then by radio category:

MODEL NO.	DESCRIPTION	WSCA CONTRACT PRICE
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**VHF FREQUENCY BAND (136-174 MHZ):****P25 DIGITAL TRUNKED PORTABLE RADIOS:**

H18KEF9PW6_N w/options: Q806,H38,Q361,H14,H301, NNTN4435, NTN1667	XTS5000, VHF, 6 watt, 512 channel, model 2, with charger & spare battery	\$3,735.82
H46KDC9PW5_N w/options: Q574,H301,NTN9815,NTN1667	XTS2500, VHF, 5 watt, 48 channel, model 1, with charger & spare battery	\$1,995.53
H66KDC9PW5_N w/options: Q574,H301,NTN9815,NTN1667	XTS1500, VHF, 5 watt, 16 channel, model 1, with charger & spare battery	\$1,451.40

**P25 DIGITAL TRUNKED MOBILE RADIOS:**

M20KTS9PW1_N w/options: G806,G51,G361,G114,G89,G67, G79,G94,W22,B18	XTL5000, VHF, 110 watt, 512 channel, model W5, remote mount	\$4,119.68
M20KSS9PW1_N w/options: G806,G51,G361,G114,W81,G89,G67, G79,G94,W22,B18	XTL5000, VHF, 50 watt, 512 channel, model W5, remote mount	\$3,753.09
M20KSS9PW1_N w/options: G806,G51,G361,G89,G66,G79,G94, W22,B18	XTL5000, VHF, 50 watt, 512 channel, model W5, front mount	\$3,533.29
M21KTM9PW1_N w/options: G806,G51,G361,G89,G67, G442,G444,W22,B18	XTL2500, VHF, 110 watt, 255 channel, remote mount	\$3,696.56
M21KSM9PW1_N w/options: G806,G51,G361,G89,G67, G442,G444,W22,B18	XTL2500, VHF, 50 watt, 255 channel, remote mount	\$3,286.56

**Motorola**

M21KSM9PW1_N w/options: G806,G51,G361,G89,G66, G442,G444,W22,B18	XTL2500, VHF, 50 watt, 255 channel, front mount	\$3,145.52
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M28KSS9PW1_N w/options: G788,G89	XTL1500, VHF, 50 watt, 48 channel, front mount	\$1,828.60
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## P25 DIGITAL CONVENTIONAL PORTABLE RADIOS:

H18KEF9PW6_N w/options: Q806,H35,H14,H301,NNTN4435,NTN166 7	XTS5000, VHF, 6 watt, 512 channel, model 2, with charger & spare battery	\$2,950.82
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H46KDC9PW5_N w/options: Q811,H301,NTN9815,NTN1667	XTS2500, VHF, 5 watt, 48 channel, model 1, with charger & spare battery	\$1,543.50
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H66KDC9PW5_N w/options: Q811,H301,NTN9815,NTN1667	XTS1500, VHF, 5 watt, 16 channel, model 1, with charger & spare battery	\$1,134.88
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## P25 DIGITAL CONVENTIONAL MOBILE RADIOS:

M20KTS9PW1_N w/options: G806,G48,G114,G89,G67, G79,G94,W22,B18	XTL5000, VHF, 110 watt, 512 channel, model W5, remote mount	\$3,334.68
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M20KSS9PW1_N w/options: G806,G48,G114,W81,G89,G67, G79,G94,W22,B18	XTL5000, VHF, 50 watt, 512 channel, model W5, remote mount	\$2,968.09
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M21KTM9PW1_N w/options: G806,G48,G89,G67, G442,G444,W22,B18	XTL2500, VHF, 110 watt, 255 channel, remote mount	\$2,876.56
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M21KSM9PW1_N w/options: G806,G48,G89,G66, G442,G444,W22,B18	XTL2500, VHF, 50 watt, 255 channel, front mount	\$2,325.52
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M28KSS9PW1_N w/options: G790,G89	XTL1500, VHF, 50 watt, 48 channel, front mount	\$1,418.60
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## P25 DIGITAL CONVENTIONAL BASE/REPEATER STATION RADIOS:

T5365 w/options: X530,X806_D,X580,X432	QUANTAR, VHF, 125 watt, 16 channel	\$11,759.44
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T5365 w/options: X330,X806_D,X580,X432	QUANTAR, VHF, 25 watt, 16 channel	\$10,827.74
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**Motorola**

## ANALOG CONVENTIONAL PORTABLE RADIOS:

H67KDC9PW5_N w/options: Q833,H301,NTN9815,NTN1667	MT1500, VHF, 5 watt, 48 channel, with charger & spare battery MT1500 is factory upgradeable to P25 dig.	\$993.30
AAH79KDC9PW5_N w/options: H129,H301CE,NTN9858	PR1500, VHF, 5 watt, 32 channel, with charger & spare battery PR1500 is factory upgradeable to P25 dig.	\$913.50
AAH25KDH9AA6_N w/options: H301,HNN9008_R	HT1250, VHF, 5 watt, 128 channel, with charger & spare battery	\$711.10
AAH25KDC9AA2_N w/options: H301,HNN9008_R	HT750, VHF, 5 watt, 4 channel, with charger & spare battery	\$542.10
AAH50KDC9AA1_N w/options: NNTN4851	CP200, VHF, 5 watt, 4 channel, with charger & spare battery	\$394.40

## ANALOG CONVENTIONAL MOBILE RADIOS:

AAM79KTD9PW5_N	PM1500, VHF, 110 watt, 255 channel, remote mount	\$1,260.00
AAM25KKD9AA2_N	CDM1250, VHF, 45 watt, 64 channel, front mount	\$534.24

## ANALOG CONVENTIONAL BASE/REPEATER STATION RADIOS:

T5365 w/options: X530,X597_A,X580,X432	QUANTAR, VHF, 125 watt, 16 channel	\$9,834.44
T5544 w/options: X330,X597,X580,X436,X153	MTR2000, VHF, 40 watt, 32 channel	\$3,699.50

## P25 MIGRATION PLAN GATEWAY SOLUTIONS:

To be determined for each application	TYPICAL MEDIUM SYSTEM, PER RFP SPECS, AS BID	\$2,488,183.78
To be determined for each application	TYPICAL SMALL SYSTEM, PER RFP SPECS, AS BID	\$1,785,195.50
To be determined for each application	TYPICAL ALTERNATE SMALL SYSTEM, AS BID FOR PHASE 1	\$244,473.89

**Motorola****MOTOROLA REPRESENTATIVE WSCA CONTRACT RADIO MODELS**

Revised 10/20/06

The following Motorola radio models are representative examples of the radios available on the WSCA contract. Contract users are requested to contact Motorola for other versions & frequency bands of each series of radio model. The WSCA RFP required Manufacturer price pages for the complete line of Motorola radios available on the WSCA contract are on file with WSCA Purchasing. The representative prices listed will be higher in states that charge an administrative fee.

The various types of Motorola radios are listed by frequency band first, then by radio category:

MODEL NO.	DESCRIPTION	WSCA CONTRACT PRICE
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**UHF FREQUENCY BAND (450-470 MHZ):****P25 DIGITAL TRUNKED PORTABLE RADIOS:**

H18SDF9PW6_N w/options: Q806,H38,Q361,H14,H301, NNTN4435, NTN1667	XTS5000, UHF, 5 watt, 512 channel, model 2, with charger & spare battery	\$3,735.82
H46SDC9PW5_N w/options: Q574,H301,NTN9815,NTN1667	XTS2500, UHF, 5 watt, 48 channel, model 1, with charger & spare battery	\$1,995.53
H66SDC9PW5_N w/options: Q574,H301,NTN9815,NTN1667	XTS1500, UHF, 5 watt, 16 channel, model 1, with charger & spare battery	\$1,451.40

**P25 DIGITAL TRUNKED MOBILE RADIOS:**

M20QTS9PW1_N w/options: G806,G51,G361,G114,G89,G67, G79,G94,W22,B18	XTL5000, UHF, 100 watt, 512 channel, model W5, remote mount	\$4,119.68
M20QSS9PW1_N w/options: G806,G51,G361,G114,W81,G89,G67, G79,G94,W22,B18	XTL5000, UHF, 40 watt, 512 channel, model W5, remote mount	\$3,753.09
M20QSS9PW1_N w/options: G806,G51,G361,G89,G66,G79,G94, W22,B18	XTL5000, UHF, 40 watt, 512 channel, model W5, front mount	\$3,533.29
M21QTM9PW1_N w/options: G806,G51,G361,G89,G67, G442,G444,W22,B18	XTL2500, UHF, 100 watt, 255 channel, remote mount	\$3,696.56
M21SSM9PW1_N w/options: G806,G51,G361,G89,G67,	XTL2500, UHF, 40 watt, 255 channel, remote mount	\$3,286.56

**Motorola**

G442,G444,W22,B18

M21SSM9PW1_N w/options: G806,G51,G361,G89,G66, G442,G444,W22,B18	XTL2500, UHF, 40 watt, 255 channel, front mount	\$3,145.52
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M28SSS9PW1_N w/options: G788,G89	XTL1500, UHF, 45 watt, 48 channel, front mount	\$1,828.60
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## P25 DIGITAL CONVENTIONAL PORTABLE RADIOS:

H18SDF9PW6_N w/options: Q806,H35,H14,H301,NNTN4435,NTN166 7	XTS5000, UHF, 5 watt, 512 channel, model 2, with charger & spare battery	\$2,950.82
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H46SDC9PW5_N w/options: Q811,H301,NTN9815,NTN1667	XTS2500, UHF, 5 watt, 48 channel, model 1, with charger & spare battery	\$1,543.50
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H66SDC9PW5_N w/options: Q811,H301,NTN9815,NTN1667	XTS1500, UHF, 5 watt, 16 channel, model 1, with charger & spare battery	\$1,134.88
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## P25 DIGITAL CONVENTIONAL MOBILE RADIOS:

M20QTS9PW1_N w/options: G806,G48,G114,G89,G67, G79,G94,W22,B18	XTL5000, UHF, 100 watt, 512 channel, model W5, remote mount	\$3,334.68
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M20QSS9PW1_N w/options: G806,G48,G114,W81,G89,G67, G79,G94,W22,B18	XTL5000, UHF, 40 watt, 512 channel, model W5, remote mount	\$2,968.09
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M21QTM9PW1_N w/options: G806,G48,G89,G67, G442,G444,W22,B18	XTL2500, UHF, 100 watt, 255 channel, remote mount	\$2,876.56
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M21SSM9PW1_N w/options: G806,G48,G89,G66, G442,G444,W22,B18	XTL2500, UHF, 40 watt, 255 channel, front mount	\$2,325.52
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M28SSS9PW1_N w/options: G790,G89	XTL1500, UHF, 45 watt, 48 channel, front mount	\$1,418.60
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## P25 DIGITAL CONVENTIONAL BASE/REPEATER STATION RADIOS:

T5365 w/options: X640,X806_D,X580,X432	QUANTAR, UHF, 110 watt, 16 channel	\$12,852.07
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T5365 w/options: X240,X806_D,X580,X432	QUANTAR, UHF, 25 watt, 16 channel	\$11,420.64
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**Motorola**

## ANALOG CONVENTIONAL PORTABLE RADIOS:

H67SDC9PW5_N w/options: Q833,H301,NTN9815,NTN1667	MT1500, UHF, 5 watt, 48 channel, with charger & spare battery MT1500 is factory upgradeable to P25 dig.	\$993.30
AAH79SDC9PW5_N w/options: H301CE,NTN9815	PR1500, UHF, 5 watt, 32 channel, with charger & spare battery PR1500 is factory upgradeable to P25 dig.	\$948.50
AAH25SDH9AA6_N w/options: H301,HNN9008_R	HT1250, UHF, 4 watt, 128 channel, with charger & spare battery	\$743.60
AAH25SDC9AA2_N w/options: H301,HNN9008_R	HT750, UHF, 4 watt, 4 channel, with charger & spare battery	\$574.60
AAH50RDC9AA1_N w/options: NNTN4851	CP200, UHF, 4 watt, 4 channel, with charger & spare battery	\$422.40

## ANALOG CONVENTIONAL MOBILE RADIOS:

AAM79QTD9PW5_N	PM1500, UHF, 110 watt, 255 channel, remote mount	\$1,330.00
AAM25SKD9PW2_N	CDM1250, UHF, 40 watt, 64 channel, front mount	\$581.76

## ANALOG CONVENTIONAL BASE/REPEATER STATION RADIOS:

T5365 w/options: X640,X597_A,X580,X432	QUANTAR, UHF, 100 watt, 16 channel	\$10,927.07
T5544 w/options: X340,X597,X580,X436,X153	MTR2000, UHF, 40 watt, 32 channel	\$4,669.00

## P25 MIGRATION PLAN GATEWAY SOLUTIONS:

To be determined for each application	TYPICAL MEDIUM SYSTEM, PER RFP SPECS, AS BID	\$2,488,183.78
To be determined for each application	TYPICAL SMALL SYSTEM, PER RFP SPECS, AS BID	\$1,785,195.50
To be determined for each application	TYPICAL ALTERNATE SMALL SYSTEM, AS BID FOR PHASE 1	\$244,473.89

**Motorola****MOTOROLA REPRESENTATIVE WSCA CONTRACT RADIO MODELS**

Revised 10/20/06

The following Motorola radio models are representative examples of the radios available on the WSCA contract. Contract users are requested to contact Motorola for other versions & frequency bands of each series of radio model. The WSCA RFP required Manufacturer price pages for the complete line of Motorola radios available on the WSCA contract are on file with WSCA Purchasing. The representative prices listed will be higher in states that charge an administrative fee.

The various types of Motorola radios are listed by frequency band first, then by radio category:

MODEL NO.	DESCRIPTION	WSCA CONTRACT PRICE
<b>800 MHZ FREQUENCY BAND (806-870 MHZ):</b>		
<b>P25 DIGITAL TRUNKED PORTABLE RADIOS:</b>		
H18UCF9PW6_N w/options: Q806,H38,Q361,H14,H301, HNN9031, NTN1667	XTS5000, 700/800 MHZ, 3 watt, 512 channel, model 2, with charger & spare battery	\$3,721.69
H46UCC9PW5_N w/options: Q574,H301,NTN9815,NTN1667	XTS2500, 700/800 MHZ, 3 watt, 48 channel, model 1, with charger & spare battery	\$1,995.53
H66UCC9PW5_N w/options: Q574,H301,NTN9815,NTN1667	XTS1500, 700/800 MHZ, 3 watt, 16 channel, model 1, with charger & spare battery	\$1,451.40
<b>P25 DIGITAL TRUNKED MOBILE RADIOS:</b>		
M20URS9PW1_N w/options: G806,G51,G361,G114,W81,G89,G67, G79,G94,W22,B18	XTL5000, 700/800 MHZ, 35 watt, 512 channel, model W5, remote mount	\$3,753.09
M20URS9PW1_N w/options: G806,G51,G361,G89,G66,G79,G94, W22,B18	XTL5000, 700/800 MHZ, 35 watt, 512 channel, model W5, front mount	\$3,533.29
M21URM9PW1_N w/options: G806,G51,G361,G89,G67, G442,G444,W22,B18	XTL2500, 700/800 MHZ, 35 watt, 255 channel, remote mount	\$3,286.56
M21URM9PW1_N w/options: G806,G51,G361,G89,G66, G442,G444,W22,B18	XTL2500, 700/800 MHZ, 35 watt, 255 channel, front mount	\$3,145.52
M28URS9PW1_N w/options: G788,G89	XTL1500, 700/800 MHZ, 35 watt, 48 channel, front mount	\$1,828.60

**Motorola**

## P25 DIGITAL CONVENTIONAL PORTABLE RADIOS:

H18UCF9PW6_N w/options: Q806,H35,H14,H301, HNN9031, NTN1667	XTS5000, 700/800 MHZ, 3 watt, 512 channel, model 2, with charger & spare battery	\$2,936.69
H46UCF9PW6_N w/options: Q811,H301,NTN9815,NTN1667	XTS2500, 700/800 MHZ, 3 watt, 512 channel, model 2, with charger & spare battery	\$2,058.00
H46UCC9PW5_N w/options: Q811,H301,NTN9815,NTN1667	XTS2500, 700/800 MHZ, 3 watt, 48 channel, model 1, with charger & spare battery	\$1,543.50
H66UCC9PW5_N w/options: Q811,H301,NTN9815,NTN1667	XTS1500, 700/800 MHZ, 3 watt, 16 channel, model 1, with charger & spare battery	\$1,134.88

## P25 DIGITAL CONVENTIONAL MOBILE RADIOS:

M20URS9PW1_N w/options: G806,G48,G114,W81,G89,G67, G79,G94,W22,B18	XTL5000, 700/800 MHZ, 35 watt, 512 channel, model W5, remote mount	\$2,968.09
M21URM9PW1_N w/options: G806,G48,G89,G66, G442,G444,W22,B18	XTL2500, 700/800 MHZ, 35 watt, 255 channel, front mount	\$2,325.52
M28URS9PW1_N w/options: G790,G89	XTL1500, 700/800 MHZ, 35 watt, 48 channel, front mount	\$1,418.60

## P25 DIGITAL CONVENTIONAL BASE/REPEATER STATION RADIOS:

T5365 w/options: X750,X806_D,X580,X432	QUANTAR, 800 MHZ, 100 watt, 16 channel	\$13,389.53
T5365 w/options: X250,X806_D,X580,X432	QUANTAR, 800 MHZ, 20 watt, 16 channel	\$11,337.48

## ANALOG CONVENTIONAL PORTABLE RADIOS:

H67UCC9PW5_N w/options: Q833,H301,NTN9815,NTN1667	MT1500, 800 MHZ, 3 watt, 48 channel, with charger & spare battery MT1500 is factory upgradeable to P25 dig.	\$993.30
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## ANALOG CONVENTIONAL MOBILE RADIOS:

**Motorola**

M28URS9PW1_N w/options: G790,G89	XTL1500, 700/800 MHZ, 35 watt, 48 channel, front mount	\$1,418.60
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## ANALOG CONVENTIONAL BASE/REPEATER STATION RADIOS:

T5365 w/options: X750,X597_A,X580,X432	QUANTAR, 800 MHZ, 100 watt, 16 channel	\$11,464.53
T5544 w/options: X450,X597,X580,X436,X153	MTR2000, 800 MHZ, 75 watt, 32 channel	\$5,579.00

## P25 MIGRATION PLAN GATEWAY SOLUTIONS:

To be determined for each application	TYPICAL MEDIUM SYSTEM, PER RFP SPECS, AS BID	\$2,488,183.78
To be determined for each application	TYPICAL SMALL SYSTEM, PER RFP SPECS, AS BID	\$1,785,195.50
To be determined for each application	TYPICAL ALTERNATE SMALL SYSTEM, AS BID FOR PHASE 1	\$244,473.89

WSCA RFP DISCOUNT MATRIX	REVISED 5/18/07		
RADIO MODEL SERIES (REFER TO MANUF. PRICE PAGES):	DISCOUNT %	CALIFORNIA , OREGON DISCOUNT %	OKLAHOMA, KANSAS DISCOUNT %
P25 DIGITAL MOBILE/DESKTOP RADIOS:			
XTL5000 MOBILE	21.5%	20.5%	21%
XTL5000 HIGH PERFORMANCE MOBILE DATA MODEMS	10%	9%	9.5%
XTL2500 MOBILE	18%	17%	17.5%
XTL1500 MOBILE	18%	17%	17.5%
P25 DIGITAL PORTABLE RADIOS:			
ASTRO XTS5000	21.5%	20.5%	21%
ASTRO XTS2500	26.5%	25.5%	26%
ASTRO XTS1500	18%	17%	17.5%
PDR3500 PORTABLE REPEATER	8.5%	7.5%	8%
ANALOG MOBILE/DESKTOP RADIOS:			

**Motorola**

PM1500 (P25 UPGRADEABLE)	30%	29%	29.5%
CDM SERIES (750, 1250, 1550, 1550LS+)	28%	27%	27.5%
CM200, CM300	15%	14%	14.5%
PM400	15%	14%	14.5%
ANALOG PORTABLE RADIOS:			
HT1250, HT1250LS+, HT1550XLS	35%	34%	34.5%
HT750	35%	34%	34.5%
EX500, EX600XLS	20%	19%	19.5%
CP100, CP150, CP200	20%	19%	19.5%
MT1500 (P25 UPGRADEABLE)	23%	22%	22.5%
PR1500 (P25 UPGRADEABLE)	30%	29%	29.5%
PR860	20%	19%	19.5%
PR400	15%	14%	14.5%
INFRASTRUCTURE / FIXED EQUIPMENT / OTHER:			
QUANTAR BASE/REPEATER STATIONS	23%	22%	22.5%
MTR2000 BASE/REPEATER STATIONS	30%	29%	29.5%
DIU-3000 DIGITAL INTERFACE UNITS	15%	14%	14.5%
ASTRO-TAC 3000 VOTING SYSTEM	15%	14%	14.5%
SPECTRA-TAC VOTING SYSTEM	15%	14%	14.5%
QUANTAR VOTING RECEIVERS	15%	14%	14.5%
GOLD ELITE CONSOLES (Gateway)	18.5%	17.5%	18%
TRUNKED CONTROLLERS (Gateway)	18.5%	17.5%	18%
Trident PassPort Trunking Infrastructure	18.5%	17.5%	18%
Trident LTR Trunking Infrastructure	18.5%	17.5%	18%
MOTOBRIDGE (Gateway)	10%	9%	9.5%
STR3000 SIMULCAST / DATA BASE STATIONS	15%	14%	14.5%
MCC5500 / MCC7500 CONSOLES	15%	14%	14.5%
CANOPY	15%	14%	14.5%
PTP / POINT TO POINT WIRELESS BROADBAND NETWORK	15%	14%	14.5%
POWERLINE MU / IN BUILDING BROADBAND DISTRIBUTION	15%	14%	14.5%
HOTZONE DUO	15%	14%	14.5%
RAD / MULTIPLEXERS	10%	9%	9.5%
EWLAN INFR & ACCESS POINTS	40%	39%	39.5%
MCC1000/2000/2500, COMMAND STAR LITE CONSOLES	10%	9%	9.5%
MC3000 DIGITAL DESKTOP CONSOLES	10%	9%	9.5%
MINITOR RECEIVERS	28%	27%	27.5%
STANDALONE ACCESSORIES ORDERED WITHOUT RADIOS	20%	19%	19.5%
Support Services	\$168.75 per hr	\$170.43 /hr	\$169.59 /hr
Installation Services	\$168.75 per hr	\$170.43 /hr	\$169.59 /hr
Repair Services		\$168.75/hr	\$170.43 /hr \$169.59 /hr

## CONTRACTOR INFORMATION

Contractor: [Northern Airborne Technology Ltd](#)

Page number

Contact: Ray Lewis, VP Business Development      Alternate Contact: Gary Cooper, Contracts Manager

1925 Kirschner Road,  
Kelowna, BC Canada,  
V1Y 4N7[gcooper@natech.com](mailto:gcooper@natech.com)

Phone: 250-763-2232

(250) 763-2232;

(888) 763-2232 ext 295

Fax: 250-762-3374

(250) 762-3374 fax

Email: [rayl@natech.com](mailto:rayl@natech.com)Internet address: [www.northernairborne.com](http://www.northernairborne.com)

Web catalog address:

Federal ID No.:

Supplier No.: W6476

Contract Worth \$

Payment address: Edmo distributors, Inc.  
12830 E. Mirabeau  
Parkway  
Spokane WA. 99216Order placement address: Contact Edmo  
Distributors, Inc.  
Ted Augustine  
1 800 828-0623 T(oll  
Free Fax)

Customer Service: Joel Johnston (EDMO Distributors, Inc)

Telephone: 1 800 235-3300 509-535-8280

Fax: 800 828-0623

Ordering procedures: All orders must include the term "WSCA CONTRACT ORDER"  
prominently shown and be direct to the ATTN: Ted Augustine via EDMO  
Toll Free Fax at (800)828-0623 or USPS mail.

Credit card acceptance: Visa – MC

Minimum orders:

Delivery time: 60 days After Receipt of Order (ARO)

Payment terms: 0% 30 days

Shipping destination: Freight on Board (FOB) destination

Freight: Prepaid and included

Palletization: N/A

Category	Category 2, FM Aircraft Radios
Equipment Line items	
Link to bid Specifications	<a href="http://www.ga.wa.gov/pca/bids/02702-Phase2-Category2.doc">http://www.ga.wa.gov/pca/bids/02702-Phase2-Category2.doc</a>
Link to Price Sheets	
Awarded Phase(s)	Phase I & II

**Northern Airborne Technology Ltd – Phase II****SPECIFICATIONS**

Description
One panel mounted VHF-FM Aeronautical Transceiver (FM-1)
Two-panel mounted VHF-FM Aeronautical Transceiver (FM-1 and FM-2).
Transceiver shall provide operator selection of both wide-band (25 kHz bandwidth/5 kHz modulation) and narrow-band (12.5 kHz bandwidth/2.5 kHz modulation) operation by channel for MAIN and GURARD operation.
Transceiver shall meet the specifications provided in Section J, FS/OAS A-19, AERONUTICAL VHF-FM RADIO TRANSCEIVER SPECIFICATIONS and Section J, FS/OAS A-24; AVIONICS OPERATIONAL TEST PROCEDURES.
Transceiver's operational controls shall be mounted in a location that is convenient to both pilot and co-pilot/observer.
Aircraft having two or more aeronautical VHF-FM radio transceivers need only have a GUARD receiver in the first transceiver (FM-1) unless one is Project 25 digital compliant and the other is not.
The radio MUST have a Supplemental Type Certification (STC) OR have FAA approval to be installed in FAA certified Part 91 aircraft.
The radio shall be capable or operating on up to 255 channels.
The 255 channels shall be any quantity mixture of APCO 25 digital trunked simulcast talk groups and separate conventional mode RF frequencies. It is acceptable for channel capability to be reduced for analog features.

**Northern Airborne Technology Ltd – Phase II**  
**PRICE SHEETS**

**FM Band Aircraft Radio**

Req. Item	Comm. Code	Description	Unit	Unit Price
1.	5820	One Panel Mounted VHF – FM Aeronautical Transceiver (FM-1) (One per aircraft) Product Bid State: Mfg.: Northern Airborne Technology Model: NPX136D-070 (with guard receiver)	EA	\$10,233.00
2.	5820	Two Panel Mounted VHF – FM Aeronautical Transceiver (FM-1 and FM-2) (Two per Aircraft) Product Bid State: Mfg.: Northern Airborne Technology Model: NPX136D-070 (with guard receiver)	EA	\$10,233.00
3.	5820	VHF-FM (in Two panel Installation) Product Bid State: Mfg.: Northern Airborne Technology Model: NPX136D-000 (without guard)	EA	\$8,343.00

The vendor shall include pricing for all STC or FAA approved optional configurations of transceivers, control head display, aircraft interconnections, control cables, power cables, installation/mounting hardware, programming devices and/or software, and other approved available items not specifically listed here.

**Northern Airborne Technology Ltd – Phase II**  
**VOLUME DISCOUNT PROGRAM - PHASE 2 ALL CATEGORIES**  
The volume discount will be cumulative and over the term of the contract.  
(Initial Term of Three [3] Years)

Additional Discount off Net Contract Unit Price	Cumulative Total Sales from:	Cumulative Total Sales to:
5 %	\$ 5,000,000	\$ 9,999,999
5 %	\$ 10,000,000	\$ 14,999,999
5 %	\$ 15,000,000	\$ 19,999,999
5 %	\$ 20,000,000	\$ 29,999,999
5 %	\$ 30,000,000	\$ 39,999,999
5 %	\$ 40,000,000	\$ 49,999,999
5 %	\$ 50,000,000	\$ 59,999,999
5 %	\$ 60,000,000	\$ 69,999,999
5 %	\$ 70,000,000	\$ 79,999,999
5 %	\$ 80,000,000	\$ 89,999,999
5 %	\$ 90,000,000	\$ 99,999,999
5 %	\$100,000,000	\$ 100,000,000+

**Radian Communication Services Inc**  
**CONTRACTOR INFORMATION**

Contractor:	<a href="#">Radian Communication Services, Inc</a>		
Page number	<a href="http://www.ga.wa.gov/pca/bids/02702-Phase2-Category6.doc">http://www.ga.wa.gov/pca/bids/02702-Phase2-Category6.doc</a>		
Contact:	Katie Schoettmer, Business Analyst Rohn Products, LLC 6718 West Plank Road Peroria, IL 61604	Alternate Contact:	Craig Ahlstrom
Phone:	(309) 633-6828		309 633-5607
Fax:	(309) 633-6808		309 633-2693
Cell Phone			309 453-5022
Email:	<a href="mailto:Katie.schoettmer@radiancorp.com">Katie.schoettmer@radiancorp.com</a>		
Alternate Contact:			
Phone:			
Fax:			
Email:			
Internet address:	<a href="http://www.radiancorp.com/">http://www.radiancorp.com/</a>		
Web catalog address:	<a href="http://www.radiancorp.com/">http://www.radiancorp.com/</a>		
Federal ID No.:	51-0273912		
Supplier No.:	W3953		
Total Contract worth:	\$500,000,000.00		
Payment address:	Radian PO Box 17322 Denver, CO 80217	Order placement address:	Radian 22125 17 <sup>th</sup> Ave SE #117 Bothell, WA 98021
Customer Service:	Pat Healey		
Telephone:	425-398-5556		
Fax:	425-398-2566		
Ordering procedures:	See the next pages		
Credit card acceptance:	None		
Minimum orders:			
Delivery time:	45 days After Receipt of Order (ARO)		
Payment terms:	0% 30 days		
Shipping destination:	Freight on Board (FOB) destination		
Freight:	Prepaid and included		
Palletization:	N/A		
Category	Category 6 Communication Towers		
Equipment Line items	Radian Products 20% off list price Rohn Products 40% off list price		
Link to bid Specifications	<a href="http://www.ga.wa.gov/pca/bids/02702-Phase2-Category6.doc">http://www.ga.wa.gov/pca/bids/02702-Phase2-Category6.doc</a>		
Link to Price Sheets			
	<b>REV F SPECIFICATIONS</b> <b>3-LEGGED TRIANGULAR SELF SUPPORT TOWERS</b> Page 190 <b>REV F SPECIFICATIONS</b> <b>GUYED TOWERS</b> Page 191		
Engineering Hourly Rate	\$100.00 per hour		
Manufacturing Hourly	\$70.00 per hour		
Field Installation Hourly	\$65.00 per hour		

**Radian Communication Services Inc**

Rate

Material at cost + 15%

Awarded Phase(s)

Phase I & II

**Radian Communication Services Inc**

Category 6 Communication Towers

**SPECIAL TERMS AND CONDITIONS****1. MATERIALS AND WORKMANSHIP**

The Contractor shall be required to furnish all materials, equipment and/or services necessary to perform contractual requirements. Materials and workmanship in the construction of equipment for this contract shall conform to all codes, regulations and requirements for such equipment, specifications contained herein, and the normal uses for which intended. Materials shall be manufactured in accordance with the best commercial practices and standards for this type of equipment. Materials used in the production of any tower must be new.

**2. WARRANTY(IES)**

All materials provided shall be guaranteed by the contractor against mechanical, electrical and workmanship defects. In the event defects become evident within the warranty period, the contractor shall furnish replacement parts and materials at no additional cost to the state. The warranty period shall commence with the date of the communications tower's acceptance and remain in effect for one (1) calendar year, except for expendable items.

The contractor shall provide, within the warranty period and at the bid price, the necessary parts, labor and transportation to maintain the equipment in sufficient state of repair to continue system performance in compliance with the specification contained herein. The contractor shall provide qualified personnel, replacement parts and material to service the equipment at the installed site location within eight (8) hours after the notification of equipment failure. Repairs must be complete within 48 hour.

This warranty period maintenance shall be on a working hour basis as follows: 24 hours per day, 7 days per week.

**3. Due to the federal guidelines for microwave towers, the contract has included REV G specifications to adapt to WSCA States who adopt the federal regulations regarding microwave towers and monopoles.**

**Radian Communication Services Inc – Phase II****REV F SPECIFICATIONS****3-LEGGED TRIANGULAR SELF SUPPORT TOWERS**

Tower in 20 ft Section, top down	Mfg stock number	Tower Costs Material & Freight Only	Climbing Ladder & Anti-Climb Device Material & Labor	Obstruction Lighting System Medium Intensity Material & Labor	Soils Report Costs	Grounding of Tower Base & WG Ladder	Tower Installation Costs Labor Only	Standard Safety Climb Cable Device includes harness, sleeve + Top & Bottom Stops + Install Labor	Rose Safety Climb Rail Device includes sleeve + Top & Bottom Stops + Install Labor	Total \$
Line Item										
1. 20 ft	RS70	\$9,935.00	\$1,161.00	\$0.00	\$3,450.00	INCLUDED	\$2,440.00	\$302.00	\$394.00	\$17,682.00
2. 40 ft	RS70	\$11,850.00	\$1,464.00	\$0.00	\$3,450.00	INCLUDED	\$3,393.00	\$268.00	\$426.00	\$20,851.00
3. 60 ft	RS70	\$13,110.00	\$1,822.00	\$0.00	\$3,450.00	INCLUDED	\$3,813.00	\$455.00	\$692.00	\$23,342.00
4. 80 ft	RS70	\$15,306.00	\$2,140.00	\$0.00	\$3,450.00	INCLUDED	\$5,408.00	\$294.00	\$620.00	\$27,218.00
5. 100 ft	RS70	\$18,444.00	\$2,483.00	\$0.00	\$3,450.00	INCLUDED	\$6,674.00	\$600.00	\$976.00	\$32,627.00
6. 120 ft	RS70	\$21,695.00	\$2,815.00	\$0.00	\$3,450.00	INCLUDED	\$9,989.00	\$325.00	\$794.00	\$39,068.00
7. 140 ft	RS70	\$24,892.00	\$3,144.00	\$0.00	\$3,450.00	INCLUDED	\$12,597.00	\$749.00	\$1,287.00	\$46,119.00
8. 160 ft	RS70	\$30,077.00	\$3,576.00	\$0.00	\$3,450.00	INCLUDED	\$16,886.00	\$359.00	\$887.00	\$55,235.00
9. 180 ft	RS70	\$34,290.00	\$3,805.00	\$0.00	\$3,450.00	INCLUDED	\$18,513.00	\$898.00	\$1,584.00	\$62,540.00
10. 200 ft	RS70	\$42,998.00	\$4,175.00	\$0.00	\$3,450.00	INCLUDED	\$22,079.00	\$388.00	\$1,126.00	\$74,216.00
11. 220 ft	RS70	\$47,799.00	\$4,317.00	\$3,889.00	\$3,450.00	INCLUDED	\$25,735.00	\$929.00	\$1,765.00	\$87,884.00
12. 240 ft	RS75	\$66,113.00	\$4,626.00	\$3,944.00	\$3,450.00	INCLUDED	\$30,887.00	\$421.00	\$1,334.00	\$110,775.00
13. 260 ft	RS75	\$76,334.00	\$4,896.00	\$3,993.00	\$3,450.00	INCLUDED	\$32,817.00	\$1,077.00	\$2,056.00	\$124,623.00
14. 280 ft	RS75	\$95,144.00	\$5,303.00	\$4,060.00	\$3,450.00	INCLUDED	\$37,024.00	\$447.00	\$1,527.00	\$146,955.00
15. 300 ft	RS75	\$102,712.00	\$5,595.00	\$4,090.00	\$3,450.00	INCLUDED	\$39,390.00	\$1,226.00	\$2,355.00	\$158,818.00

**Radian Communication Services Inc – Phase II****REV F SPECIFICATIONS****GUYED TOWERS**

Tower in 20 ft Section, top down	Mfg stock number	Tower Costs Material & Freight Only	Climbing Ladder & Anti-Climb Device Material & Labor	Obstruction Lighting System Medium Intensity Material & Labor	Soils Report Costs	Grounding of Tower Base & WG Ladder	Tower Installation Costs Labor Only	Standard Safety Climb Cable Device includes harness, sleeve + Top & Bottom Stops + Install Labor	Rose Safety Climb Rail Device includes sleeve + Top & Bottom Stops + Install Labor	Total \$
Line Item										
1. 20 ft	RG33	\$10,684.00	\$1,515.00	\$0.00	\$3,910.00	INCLUDED	\$1,470.00	\$302.00	\$297.00	\$18,178.00
2. 40 ft	RG33	\$12,011.00	\$1,515.00	\$0.00	\$3,910.00	INCLUDED	\$3,184.00	\$250.00	\$388.00	\$21,258.00
3. 60 ft	RG33	\$13,220.00	\$1,515.00	\$0.00	\$3,910.00	INCLUDED	\$4,082.00	\$451.00	\$692.00	\$23,870.00
4. 80 ft	RG33	\$15,142.00	\$1,515.00	\$0.00	\$3,910.00	INCLUDED	\$5,187.00	\$532.00	\$849.00	\$27,135.00
5. 100 ft	RG33	\$16,430.00	\$1,515.00	\$0.00	\$3,910.00	INCLUDED	\$6,365.00	\$600.00	\$989.00	\$29,809.00
6. 120 ft	RG33	\$18,634.00	\$1,515.00	\$0.00	\$3,910.00	INCLUDED	\$6,765.00	\$668.00	\$1,148.00	\$32,640.00
7. 140 ft	RG33	\$21,157.00	\$1,515.00	\$0.00	\$3,910.00	INCLUDED	\$7,084.00	\$751.00	\$1,287.00	\$35,704.00
8. 160 ft	RG33	\$23,078.00	\$1,515.00	\$0.00	\$3,910.00	INCLUDED	\$8,577.00	\$838.00	\$1,474.00	\$39,392.00
9. 180 ft	RG33	\$24,699.00	\$1,515.00	\$0.00	\$3,910.00	INCLUDED	\$9,861.00	\$898.00	\$1,584.00	\$42,467.00
10. 200 ft	RG33	\$26,573.00	\$1,515.00	\$0.00	\$3,910.00	INCLUDED	\$11,873.00	\$921.00	\$1,689.00	\$46,481.00
11. 220 ft	RG33	\$28,372.00	\$1,515.00	\$3,889.00	\$3,910.00	INCLUDED	\$11,093.00	\$929.00	\$1,765.00	\$51,473.00
12. 240 ft	RG33	\$32,441.00	\$1,515.00	\$3,944.00	\$3,910.00	INCLUDED	\$13,534.00	\$1,005.00	\$1,920.00	\$58,269.00
13. 260 ft	RG33	\$37,528.00	\$1,515.00	\$3,993.00	\$3,910.00	INCLUDED	\$14,525.00	\$1,077.00	\$2,056.00	\$64,604.00
14. 280 ft	RG33	\$42,041.00	\$1,515.00	\$4,060.00	\$3,910.00	INCLUDED	\$15,367.00	\$1,168.00	\$2,248.00	\$70,309.00
15. 300 ft	RG33	\$45,449.00	\$1,515.00	\$4,090.00	\$3,910.00	INCLUDED	\$16,136.00	\$1,226.00	\$2,355.00	\$74,681.00

**Radian Communication Services Inc – Phase II****REV G SPECIFICATIONS<sup>1</sup>  
RADIAN COMMUNICATIONS**

REV G CATEGORIES	 G:\Purchasing & Contracts\Contracts\	
MICROWAVE TOWERS	 REV G Towers & Monopoles 2007 Price	
CAMERA POLES	 Radian Camera Pole Pricing 2007.pdf	
OPTIONAL LIGHTING	 Radian Lighting Data.pdf	

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<sup>1</sup> Rev G is the new federal requirements for microwave communications. Each state may or maynot adopt the federal requirements so they would use Rev F specifications. Each WSCA member may use which specification their particular state has adopted or use a combination of both. Rev G was added to increase flexibility for members in choosing

**Radio Frequency System**  
**CONTRACTOR INFORMATION**

Category 7 Microwave Antennas, Waveguide & Associated Hardware

Contractor:	<b>Radio Frequency System</b>		
Contact:	Richard Bogue	Alternate Contact:	Ray Bibisi, Senior Director
			National Area Sales
Phone:	203-630-3311 x1223		203-630-3311 x 1238
Fax:	203-821-3852		203-634-2272
Email:	<a href="mailto:Richard.bogue@rfsworld.com">Richard.bogue@rfsworld.com</a>		<a href="mailto:ray.bibisi@rfsworld.com">ray.bibisi@rfsworld.com</a>
Internet address:	<a href="http://www.rfsworld.com/">http://www.rfsworld.com/</a>		200 Pondview Drive
Web catalog address:			Meriden, CT 06450
Federal ID No.:	13-3379797		cell (203) 768-2238
Supplier No.:	W3302		
Total Contract worth:	\$500,000,00.00		
Payment address:	First Union National Bank	Order placement	Radio Frequency Systems,
	PO Box 601000	address:	Inc.
	M/F: Radio Frequency		One Tower Lane, Suite 1925
	Systems		Oakbrook Terrace, IL 60181
	Charlotte, NC 28260-1000		
Customer Service/Order	Tracey Fetzer, Twyla Lewis or Nanette Cummins		
Placement:			
Customer Service:	Tracey Fetzer, Twyla Lewis or Nanette Cummins		
Telephone:	630-218-2720; Tracey Fetzer (ext. 1164), Twyla Lewis (ext. 1162), Nanette Cummins (ext. 1149)		
Fax:	630-218-2728		
Ordering procedures:	Contact Customer Service/Order Placement/		
Credit card acceptance:	Visa, Master Card, American Express		
Minimum orders:	None		
Delivery time:	30 days After Receipt of Order (ARO)		
Payment terms:	0% 30 days		
Shipping destination:	Freight on Board (FOB) destination		
Freight:	Prepaid and included		
Palletization:	N/A		
Category	7		
Equipment Line items	See Price Sheets and note surcharge below. If comparing contract pricing please note if contractor includes surcharges that apply throughout the industry.		
Link to bid Specifications	<a href="http://www.ga.wa.gov/pca/bids/02702-Phase2-Category7.doc">http://www.ga.wa.gov/pca/bids/02702-Phase2-Category7.doc</a>		
Link to Price Sheets			
Awarded Phase(s)	Phase I & II		
Additional Distributors	HUTTON COMMUNICATIONS		
	TESSCO		

**REPAIR FACILITIES**

In the event that an item should need repair, the Sales Administrator will provide the customer with a Return Material Authorization (RMA) number. The sales administrator then records all pertinent information into RFS' database and advises the customer of the correct location to which the material must be shipped. Note that the RMA number must be clearly marked on the outside of the shipping container.

When the material arrives at the designated location, the receiving department updates the system showing the return as "Received". The material is then forwarded for evaluation. After the evaluation is complete, the database is again updated. Computer generated reports are issued on a daily basis to advise sales of the status of all returns.

Once sales has received the evaluation, a course of action takes place based on the reason for the return and the quality assurance evaluation. The customer is then notified and the item is either repaired or replaced. All repairs are made by RFS employees at RFS facilities.

All returns should be sent to the following locations:

Antennas and Dehydrators

Radio Frequency Systems, Inc  
175 Corporate Court  
Meriden, CT 06450

Cable, Connectors, Jumpers & Accessories

Radio Frequency System, Inc.  
29 Research Parkway  
Wallingford, CT 06492

**CONTACTS AND PHONE NUMBERS (Revised)**

STATE	CONTACT NAME	PHONE NUMBER
Alaska	Tracey Fetzer	630-218-2720 ext 1164
Arizona	Twyla Lewis	630-218-2720 ext 1162
Northern California	Nanette Cummins	630-218-2720 ext 1149
Southern California	Nanette Cummins	630-218-2720 ext 1149
Colorado	Twyla Lewis	630-218-2720 ext 1162
Georgia	Rick Barbieri	203-630-3311 ext 1096
Hawaii	Tracey Fetzer	630-218-2720 ext 1164
Idaho	Tracey Fetzer	630-218-2720 ext 1164
Minnesota	Tracey Fetzer	630-218-2720 ext 1164
Montana	Tracey Fetzer	630-218-2720 ext 1164
Northern Nevada	Nanette Cummins	630-218-2720 ext 1149
Southern Nevada	Nanette Cummins	630-218-2720 ext 1149
New Mexico	Twyla Lewis	630-218-2720 ext 1162
Oklahoma	Nanette Cummins	630-218-2720 ext 1149
Oregon	Tracey Fetzer	630-218-2720 ext 1164
South Dakota	Tracey Fetzer	630-218-2720 ext 1164
Utah	Twyla Lewis	630-218-2720 ext 1162
Washington	Tracey Fetzer	630-218-2720 ext 1164
Wyoming	Twyla Lewis	630-218-2720 ext 1162

## Raw Material Surcharge Price List USD/ft

Model Number	Surcharge [\$/ft]	Model Number	Surcharge [\$/ft]
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## CELLFLEX

SCF14-50	0.06
SCF38-50	0.15
SCF12-50	0.16
SCF78-50	0.47
UCF78-50	0.31
UCF114-50	0.63
LCF14-50	0.06
LCF38-50	0.10
LCF12-50	0.13
LCF58-50	0.30
LCF78-50	0.35
LCFS114-50	0.67
LCF158-50	0.70
LCF214-50	1.10

## RADIAFLEX

Cable Type: ALF, RLF, RLK, RLV, RAY

Nominal Size

12	0.06
58	0.23
78	0.26
114	0.41
158	0.41

EO11

## FLEXWELL

E20	3.99
E30	2.62
E38/EP38	1.62
E46/EP46/ESP46	1.22
EP58	0.86
E60/60	0.85
E65/EP65	0.80
EP70	0.74
E78/EP78	0.71
EP100	0.55
E105/EP105	0.53
E130/EP130	0.39
E150/EP150	0.34
E185/EP185	0.27
E220	0.23
E250	0.15
E300	0.13
E380	0.10

0.94

## HELIFLEX

Cable Type: RSF, RCF

Model Number

RSF12-50	0.16
RCF12-50	0.13
RCF78-50	0.34
RCF114-50	0.67
RCF158-50	0.70

HCA38-50	0.33
HCA12-50	0.15
HCA58-50	0.74
HCA78-50	0.75
HCA118-50	1.03
HCA158-50	1.30
HCA214-50	1.58
HCA295-50	2.54
HCA300-50	1.97
HCA318-50	3.43
HCA418-50	4.40
HCA500-50	7.53
HCA618-50J	9.75
HCA800-50J	17.04

## Jumper

*Example: Jumper SCF12-50 7M7MS12-060P 6ft x 0.16\$/ft = 0.96\$*

The above surcharges are based on LME values on copper between 5500 and 7000 USD per mt.

Raw Material Surcharges for Jumpers are equivalent to Cable Surcharges.

HUTTON COMMUNICATIONS			
Main Contact (inside): Lisa Hensley 866-270-8808 henslyl@huttoncom.com		Secondary Contact: Tammy Coones 877-648-8866 coonest@huttoncom.com	Customer Service MGR: Spencer Peart 972-417-0266 <a href="mailto:peartp@huttoncom.com">peartp@huttoncom.com</a>
Payment address: Hutton Communications P.O. Box 201439 Dallas, TX 75320		Order placement address: Hutton Communications 2520 Marsh Lane Carrollton, TX 75006  Order placement fax: 877-762-8274	Internet address: <a href="http://www.huttononline.com">http://www.huttononline.com</a>
TESSCO			
Main Contact:	Glenn Frame	Secondary Contact:	John Hunt
Address:	11126 McCormick Road Hunt Valley, MD 21031	Address:	4775 Aircenter Cr. Reno, NV 89502
Phone Numbers:	410-229-1344	Phone Numbers: Fax:	1 -888 821 0591 1 775-689 5557
Email:	<a href="mailto:frame@tessco.com">frame@tessco.com</a>	Email:	<a href="mailto:huntj@tessco.com">huntj@tessco.com</a>

**Radio Frequency System****General**

This specification covers the latest state of the art Microwave Antennas and Associated Equipment of use in specified frequency bands to meet the needs of the State of Washington, its departments and agencies, universities, colleges, community colleges and schools and all political subdivisions.

**Classification**

All antennas, transmission line connectors and associated hardware selected as suitable for purchase will be given classification within the frequency band groups as follows:

Frequency Band

0932	-	0960	MHz
2110	-	2200	MHz
2290	-	2500	MHz
5725	-	5850	MHz
5925	-	6875	MHz
10.7	-	11.7	GHz
17.7	-	19.7	GHz
21.8	-	23.6	GHz

**Standards**

1. Part 101, Federal Communications Commission (FCC) Rules and Regulations and amendments; E. I. A. Standards and amendments, RS222.(Latest Version)
2. These specifications are exclusive of any and all equipment with proprietary items, components or devices inclusive therein. All technical tolerances, ratings, or any technically specified criteria contained within this specification are within the current state-of-the-art and are currently being met by commercially available equipment.
3. All material and workmanship will be of the type and grade most suitable for the application. All material will be free from defects, of current design, of recent manufacture and unused.
4. The State of Washington reserves the right to reject any bid proposing equipment that has proven in actual use and properly documented to be unreliable or unsuitable for the work to be accomplished and /or has shown that the operating or maintenance costs of which have been excessive in comparison with other makes of similar equipment working under like conditions.
5. All material and equipment furnished will be subject to approval by the State of Washington, Department of General Administration, Office of State Procurement, including engineers selected to review the products with regard to design, operation, performance and requirements of this specification. The acceptance of equipment or parts thereof will in no way relieve the contractor of responsibility for furnishing equipment that meets this specification in all detail.
6. Should any of the inspections, tests, or operation of the equipment under service conditions show the equipment does not meet the requirements of the specifications, the State will reject the equipment or parts thereof and require the contractor to make changes as necessary to meet the requirements of the specifications at the expense of the contractor.
7. The contractor(s) will hold and save the State, its officers, agents, servants, and employees harmless from liability of any nature of kind, including costs and expense, for or on account of any patented or unpatented invention, articles, or appliance manufactured or used in the performance of any and all contracts encompassing these specifications.
8. Unless specifically excepted by the terms of these specifications, any part or accessories ordinarily furnished or required to make the equipment, herein specified, a complete operating unit will be furnished by the contractor whether identified in these specifications or not.

**Radio Frequency System**

9. All units will be delivered to the purchaser with any and all equipment modifications intact and installed.

**Technical Manuals**

1. The contractor will make available equipment documentation to purchasers in any quantity specified by the purchaser over and above the quantity specified herein. This documentation will accompany the equipment at the time of delivery or may be delivered prior to equipment delivery. Documentation costs for purchaser specified manuals will be included as separate bid items. A copy of radiation patterns will be provided at not cost if requested.

**Service, Installation and Operation Manuals**

Installation and or operator manuals will be furnished with each order. Each manual will contain:

1. Complete diagrams including information outlining method of operation, supply voltages and currents and power requirements for each model of dehydrators.
2. Detailed drawings or clear photographs showing location of parts and hardware associated with antenna assembly or mounting.

**Equipment Service Life**

1. All equipment covered by these specifications and any resultant contracts will have a minimum service life of ten (10) years from date of delivery to the purchaser. The contractor will guarantee replacement parts stocking by the vendor and/or authorized distributor for this service life period.

**Equipment and Parts Warranty**

1. Each contractor will guarantee repair or replacement of any equipment or part thereof that fails in operation during normal and proper use within two (2) years from the date of purchaser's receipt due to defects in design, material or workmanship, consummation of final acceptance and payment notwithstanding. These replacements will be made with celerity and without charge to the purchaser. The cost of installation of these replacements will be borne by the contractor for the period of the warranty.
2. Any equipment or part replaced under the provisions of this warranty becomes the property of the contractor. If the vendor desires the defective equipment or part returned, the contractor will pay all transportation charges and make all arrangements for the return. If the contractor does not specifically request return of such replaced parts within thirty (30) days from the date of replacement, the equipment for parts become property of the purchaser.
3. Replacement parts will be regularly stocked by the contractor and/or authorized distributor. Delay in purchaser's receipt of replacement parts will not exceed ten (10) consecutive days from contractor's or distributor's receipt of order.
4. The contractor will guarantee delivery of emergency orders within forty-eight (48) hours from receipt of order. Emergency orders will be transported by the most expedient manner available with the transportation cost born by the purchaser less normal shipping cost.
5. The contractor will supply the purchaser, free of charge for the service life of the equipment, with all data, drawings, and specifications of modifications, plans or experiments by which the equipment may be improved or modernized.

**Radio Frequency System**

## General Equipment characteristics

The following characteristics apply to all equipment unless otherwise specified.

## Environmental

1. All antennas will survive wind velocities of 125 miles per hour with one (1) inch of radial ice and no more than 0.1 degree of deflection in 70 mile per hour wind.
2. All antennas will remain operational within the temperature range of -58°F to 155°F.
3. All antennas and associated hardware will be non-corrosive, non-rust material. This can be accomplished by supplying Hot Dipped Galvanized or Stainless Steel hardware. Plated steel will not be accepted. Aluminum antennas will be painted with corrosion resistant paint.
4. Field assembly of all antennas shall only be between antenna parabola, feed, antenna mount and fixed and/or slide assemblies. There shall be no field assembly parabola for that is too time consuming. Antenna mount assembly is permitted.
5. Parabolic solid antennas shall be equipped to include mounting hardware for a 4.5" vertical O.D. mounting pipe. Parabolic grid antennas shall be equipped to include mounting hardware for either a 1.9" – 3.5" or a 4.5" vertical O.D.(Outside Diameter) mounting pipe.
6. For parabolic solid antenna shall have a reflector surface tolerance designed to 15GHz so that antenna feeds could be interchanged between 2GHz and 10 GHz without loss to antenna gain. The same like between antenna feeds in the 18GHz and 23GHz bands.

## Operational Characteristics

Material and workmanship will be of the type and grade most suitable for the application and will conform as a minimum unless otherwise specified to the latest applicable standards, specifications, recommended practices and procedures of such standardizing bodies as the I.E.E.E., E.I.A., N.E.M.A., F.C.C.

**Radio Frequency System – Phase II****CATEGORY 7 PRICE SHEETS**

Contractor	Category 7 Waveguides and Antennas
Radio Frequency Systems	<a href="http://www.ga.wa.gov/pca/bids/02702-Phase2-Category7.doc">http://www.ga.wa.gov/pca/bids/02702-Phase2-Category7.doc</a>

**ANTENNAS**

The specifications listed herein are minimum requirements; a range variance of up to a maximum of .9DB has been identified as acceptable.

**A. Welded Grid Antenna. 928-960 MHz. Type “N” Female input connector.**

Diameter in Feet	Gain DB Bottom	Gain-DB Mid Band	Gain-DB Top	FCC Category	Beam width in °s	Cross Pol Disc. DB	F/B Ratio DB	VSRW	RFS P/N	PRICE EACH
4.0	18.3	18.6	19.1	B	17.4	25	21	1.4	MGA4-082N	\$632.50
6.0	21.2	21.3	21.6	A	12.6	25	30	1.4	MGA6-082N	\$1,144.00
8.0	23.7	24.4	25.0	A	9.0	26	24	1.35	GKL8-082N	\$1,628.00
10.0	25.6	26.3	27.0	A	7.2	26	27	1.35	GKL10-082N	\$1,974.50
12.0	27.4	28.2	28.8	A	5.9	26	30	1.3	GKA12-082M	\$3,184.50

**B. Solid Parabolic Reflector Standard Antenna, 928-960 MHz, 7/8” EIA Flange or Type “N” Female Input Connector**

Diameter in Feet	Gain-DB Bottom	Gain-DB Mid Band	Gain-DB Top	FCC Category	Beam Width °s	Cross Pol Disc. DB	F/B Ratio DB	VSWR	RFS P/N	PRICE EACH.
4.0	18.1	18.4	18.8	B	19.5	10	22	1.3	PAF4-890AE	\$777.60
6.0	21.6	22.1	22.3	A	13.0	15	25	1.3	PAF6-890AE	\$931.20
8.0	24.1	24.5	24.8	A	9.7	15	27	1.3	PAF8-890AE	\$1,382.40
10.0	26.1	26.4	26.7	A	7.7	15	29	1.3	PAF10-890AE	\$2,112.00
12.0	27.6	28.0	28.3	A	6.4	15	30	1.3	PAF12-890AE	\$3,686.40

**C. Welded Grid Antenna 2.1-2.2 GHz, 7/8” EIA Flange or Type “N” Female Input Connector. “AIR DIELECTRIC FEED”**

Diameter in Feet	Gain-DB Bottom	Gain-DB Mid Band	Gain-DB Top	FCC Category	Beam Width °s	Cross Pol Disc. DB	F/B Ratio DB	VSWR	RFS P/N	PRICE EACH
4.0	25.6	26.8	27.2	B	8.0	29	34	1.3	MGA4-19N	\$632.50
6.0	28.5	29.3	30.1	A	5.4	32	35	1.2	MGA6-19N	\$1,144.00
8.0	31.0	31.8	32.6	A	4.1	35	41	1.2	GKL8-19N	\$1,628.00
10.0	32.9	33.8	34.6	A	3.2	35	45	1.2	GKL10-19N	\$1,974.50
12.0	34.7	35.6	36.4	A	2.6	40	47	1.2	GKA12-19N	\$3,184.50
15.0	36.6	37.5	38.3	A	2.1	40	49	1.2	GPW15-19N	\$12,223.75

**Radio Frequency System – Phase II**

D. Welded Grid Antenna 2.1-2.2 GHz, 7/8” EIA Flange or Type “N” Female Input Connector. “FOAM FEED”

**NOTE: NON PRESSURIZED FEEDS ARE NOT AVAILABLE SEE ABOVE**

Diameter in Feet	Gain-DB Bottom	Gain-DB Mid Band	Gain-DB Top	FCC Category	Beam Width °s	Cross Pol Disc. DB	F/B Ratio DB	VSWR	RFS P/N	PRICE EACH
4.0	26.5	26.7	26.9	B	7.9	29	32	1.3	N/A	\$
6.0	30.3	30.5	30.7	A	5.3	32	35	1.2	N/A	\$
8.0	32.0	32.2	32.4	A	4.0	35	39	1.2	N/A	\$
10.0	33.8	34.0	34.2	A	3.2	35	41	1.2	N/A	\$
12.0	35.3	35.5	35.7	A	2.6	40	44	1.2	N/A	\$
15.0	37.3	37.5	37.7	A	2.1	40	46	1.2	N/A	\$

E. Solid Parabolic Standard Antenna 2.1-2.2 GHz, 7/8” EIA Type “N” Female Input Connector.

Diameter in Feet	Gain-DB Bottom	Gain-DB Mid Band	Gain-DB Top	FCC Category	Beam Width °s	Cross Pol Disc. DB	F/B Ratio DB	VSWR	RFS P/N	PRICE EACH
4.0	24.8	25.7	26.6	B	8.1	27	33	1.2.	PAL4-19AN	\$844.80
6.0	28.7	29.6	30.5	B	5.5	30	37	1.15	PAL6-19AN	\$1,017.60
8.0	31.2	32.1	33.0	A	4.1	30	40	1.1	PAL8-19AN	\$1,449.60
10.0	33.1	34.0	34.9	A	3.3	30	43	1.1	PAL10-19AN	\$2,198.40
12.0	34.7	35.6	36.5	A	2.8	30	45	1.1	PAL12-19AN	\$3,979.20
15.0	36.4	37.3	38.3	A	2.2	30	49	1.0	PAL15-19AN	\$10,512.00

F. Solid Parabolic Standard Antenna 6.425-7.125 GHz, CPR 137G Input Flange

Diameter in Feet	Gain-DB Bottom	Gain-DB Mid Band	Gain-DB Top	FCC Category	Beam Width °s	Cross Pol Disc. DB	F/B Ratio DB	VSWR	RFS P/N	PRICE EACH
4.0	35.9	36.4	36.8	-	2.5	30	43	1.08	PAL4-65AC	\$844.80
6.0	39.4	39.9	40.3	B	1.7	30	47	1.06	PAL6-65AC	\$1,017.60
8.0	41.6	42.1	42.5	A	1.3	30	59	1.06	PAD8-65AC	\$1,608.00
	42.0	42.4	42.9	B	1.2	30	49	1.06	PAL8-65AC	\$1,449.60
10.0	43.5	43.9	44.3	A	1.0	30	52	1.06	PAD10-65AC	\$2,304.00
	43.7	44.1	44.6	B	1.1	30	63	1.06	PAL10-65AC	\$2,198.00
12.0	45.3	45.8	46.2	A	0.8	30	70	1.06	DA12-65AC	\$6,020.00

**Radio Frequency System – Phase II****G. Solid Parabolic Dual Polarized Standard Antenna 6.425-7.125 GHz, CPR 137G Input Flange**

Diameter in Feet	Gain-DB Bottom	Gain-DB Mid Band	Gain-DB Top	FCC Category	Beam Width °s	Cross Pol Disc. DB	F/B Ratio DB	VSWR	RFS P/N	PRICE EACH
6.0	39.2	39.7	40.1	B	1.7	30	47	1.06	PAX6-65AC	\$1,670.40
8.0	41.4	41.9	42.3	A	1.2	30	59	1.06	PADX8-65AC	\$2,145.60
10.0	43.5	43.9	44.4	A	1.0	30	52	1.06	PADX10-65AC	\$2,832.00
12.0	45.1	45.6	46.0	A	0.8	30	71	1.06	DAX12-65AC	\$6,468.00

**H. Single Polarized Antenna, 6.425-7.125 GHz, CPR 137G Input Flange**

Diameter in Feet	Gain-DB Bottom	Gain-DB Mid Band	Gain-DB Top	FCC Category	Beam Width °s	Cross Pol Disc. DB	F/B Ratio DB	VSWR	RFS P/N	PRICE EACH
4.0	35.6	36.0	36.5	-	2.5	30	58	1.08	DA4-65AC	\$1,536.00
6.0	39.4	39.8	40.2	B	1.7	30	64	1.06	DA6-64AC	\$2,820.00
8.0	41.9	42.3	42.8	A	1.3	30	66	1.06	DA8-65AC	\$3,498.00
10.0	43.7	44.1	44.6	A	1.0	30	69	1.06	DA10-65AC	\$4,444.00
12.0	45.3	45.8	46.2	A	0.8	30	70	1.06	DA12-65AC	\$6,020.00

**I. Dual Polarized Antenna, 6.425-7.125 GHz, CPR 137G Input Flange**

Diameter in Feet	Gain-DB Bottom	Gain-DB Mid Band	Gain-DB Top	FCC Category	Beam Width °s	Cross Pol Disc. DB	F/B Ratio DB	VSWR	RFS P/N	PRICE EACH
4.0	34.8	35.3	35.7	-	2.5	30	58	1.10	DAX4-65AC	\$1,794.00
6.0	39.1	39.5	39.9	A	1.7	30	64	1.07	DAX6-65AC	\$2,990.00
	39.2	39.7	40.1	B	1.7	30	47	1.06	PAX6-65 AC	\$1,670.40
8.0	41.6	42.0	42.4	A	1.3	34	68	1.06	DAX8-65AC	\$3,684.00
	41.8	42.2	42.7	B	1.3	30	52	1.06	PAX8-65 AC	\$1,987.20
10.0	43.6	44.0	44.4	A	1.0	34	70	1.06	DAX10-65AC	\$4,804.00
	43.5	43.9	44.4	B	1.0	30	58	1.06	PAX10-65AC	\$2,515.20
12.0	45.1	45.6	46.0	A	0.8	30	71	1.06	DAX12-65AC	\$6,468.00

**J. Single Polarized Parabolic Antenna, 10.7-11.7 GHz, CPR 90G Input Flange**

Diameter in Feet	Gain-DB Bottom	Gain-DB Mid Band	Gain-DB Top	FCC Category	Beam Width °s	Cross Pol Disc. DB	F/B Ratio DB	VSWR	RFS P/N	PRICE EACH
4.0	40.1	40.5	40.9	B	1.6	30	62	1.08	DA4-107AC	\$1,536.00
6.0	43.5	43.9	44.3	B	1.0	30	60	1.06	PAD6-107AC	\$1,080.00
8.0	46.0	46.4	46.8	A	0.7	30	62	1.06	PAD8-107AC	\$1,608.00
10.0	47.9	48.3	48.5	A	0.7	30	64	1.06	PAD10-107AC	\$2,304.00
12.0	49.4	49.8	50.0	A	0.5	30	71	1.06	DA12-107AC	\$6,020.00

**Radio Frequency System – Phase II****K. Dual Polarized Parabolic Antenna, 10.7-11.7 GHz, CPR 90G Input Flange**

Diameter in Feet	Gain-DB Bottom	Gain-DB Mid Band	Gain-DB Top	FCC Category	Beam Width °s	Cross Pol Disc. DB	F/B Ratio DB	VSWR	RFS P/N	PRICE EACH
4.0	40.0	40.4	40.8	A	1.5	30	64	1.10	DAX4-107AC	\$1,794.00
6.0	43.4	43.8	44.2	A	1.0	30	60	1.08	PADX6-107AC	\$1,728.00
8.0	45.9	46.3	46.7	A	0.8	30	62	1.08	PADX8-107AC	\$2,145.60
10.0	47.8	48.2	48.4	A	0.7	30	64	1.08	PADX10-107AC	\$2,832.00
12.0	49.2	49.6	49.9	A	0.5	30	72	1.06	DAX12-107AC	\$6,468.00

**L. Single Polarized Parabolic Antenna, 10.7-11.7 GHz, CPR 90G Input Flange**

Diameter in Feet	Gain-DB Bottom	Gain-DB Mid Band	Gain-DB Top	FCC Category	Beam Width °s	Cross Pol Disc. DB	F/B Ratio DB	VSWR	RFS P/N	PRICE EACH
4.0	40.1	40.5	40.9	A	1.6	30	62	1.08	DA4-107AC	\$1,536.00
6.0	43.7	44.0	44.5	A	1.0	30	70	1.06	DA6-107AC	\$2,820.00
8.0	46.1	46.4	46.9	A	0.8	30	71	1.06	DA8-107AC	\$3,498.00
10.0	48.0	48.4	48.6	A	0.7	30	71	1.06	DA10-107AC	\$4,444.00
12.0	49.4	49.8	50.0	A	0.5	30	72	1.06	DA12-107AC	\$6,020.00

**M. Dual Polarized Parabolic Antenna, 10.7-11.7 GHz, CPR 90G Input Flange**

Diameter in Feet	Gain-DB Bottom	Gain-DB Mid Band	Gain-DB Top	FCC Category	Beam Width °s	Cross Pol Disc. DB	F/B Ratio DB	VSWR	RFS P/N	PRICE EACH
4.0	40.0	40.4	40.8	A	1.5	30	64	1.10	DAX4-107AC	\$1,794.00
6.0	43.5	43.8	44.3	A	1.0	30	68	1.08	DAX6-107AC	\$2,990.00
8.0	45.9	46.2	46.7	A	0.8	30	69	1.06	DAX8-107AC	\$3,684.00
10.0	47.8	48.2	48.4	A	0.7	30	70	1.06	DAX10-107AC	\$4,804.00
12.0	49.2	49.6	49.9	A	0.5	30	72	1.06	DAX12-107AC	\$6,468.00

**N. Single Polarized Parabolic Antenna, 17.7-19.7 GHz, UG-595/U Input Flange**

Diameter in Feet	Gain-DB Bottom	Gain-DB Mid Band	Gain-DB Top	FCC Category	Beam Width °s	Cross Pol Disc. DB	F/B Ratio DB	VSWR	RFS P/N	PRICE EACH
2.0	38.1	38.6	39.1	A	1.9	32	62	1.20	SU2-190AZ	\$360.00
4.0	44.1	44.6	45.1	A	0.9	32	67	1.20	SU4-190AZ	\$896.00
	44.3	44.8	45.3		0.9	32	53	1.20	SP4-190AZ	\$739.00
6.0	47.5	48.0	48.5	A	0.7	32	71	1.20	SU6-190AZ	\$1,596.00
	47.7	48.2	48.7		.07	32	57	1.20	SP6-190AZ	\$852.00

**Radio Frequency System – Phase II****O. Single Polarized Parabolic Antenna, 21.2-23.6 GHz, UG-595/U Input Flange**

Diameter in Feet	Gain-DB Bottom	Gain-DB Mid Band	Gain-DB Top	FCC Category	Beam Width °s	Cross Pol Disc. DB	F/B Ratio DB	VSWR	RFS P/N	PRICE EACH
2.0	39.6	40.1	40.6	A	1.6	32	66	1.20	SU2-220AZ	\$360.00
4.0	45.6	46.1	46.6	A	0.8	32	72	1.20	SU4-220AZ	\$896.00
	45.8	46.3	46.8		0.8	32	58	1.20	SP4-220AZ	\$739.20
6.0	49.0	49.5	50.0	A	0.5	32	75	1.15	SU6-220AZ	\$1,596.00
									SP6-220AZ	\$852.00

**HIGH Performance and Ultra High Performance****A. High Performance, 6.425-7.125 GHz, Single Polarization, CPR 137G Input Flange**

Diameter in Feet	Gain-DB Bottom	Gain-DB Mid Band	Gain-DB Top	FCC Category	Beam Width °s	Cross Pol Disc. DB	F/B Ratio DB	VSWR	RFS P/N	PRICE EACH
4.0	35.4	36.0	36.5	-	2.5	30	58	1.08	DA4-65AC	\$1,536.00
6.0	39.4	39.8	40.2	A	1.7	30	64	1.06	DA6-65AC	\$2,820.00
8.0	41.9	42.3	42.8	A	1.3	30	66	1.06	DA8-65AC	\$3,498.00
10.0	43.7	44.1	44.6	A	1.0	30	70	1.06	DA10-65AC	\$4,444.00
12.0	45.3	45.8	46.2	A	0.8	30	71	1.05	DA12-65AC	\$6,020.00
15.0	47	47.5	47.9	A	0.7	30	71	1.06	DA15-65AC	\$9,780.00

**B. High Performance, 6.425-7.125 GHz, Dual Polarization, CPR 137G Input Flange**

Diameter in Feet	Gain-DB Bottom	Gain-DB Mid Band	Gain-DB Top	FCC Category	Beam Width °s	Cross Pol Disc. DB	F/B Ratio DB	VSWR	RFS P/N	PRICE EACH
4.0	34.8	35.3	35.7	-	2.5	30	58	1.08	DAX4-65AC	\$1,794.00
6.0	39.2	39.7	40.1	A	1.7	30	64	1.06	DAX6-65AC	\$2,990.00
8.0	41.8	42.2	42.7	A	1.3	30	68	1.06	DAX8-65AC	\$3,684.00
10.0	43.5	43.9	44.4	A	1.0	30	70	1.06	DAX10-65AC	\$4,804.00
12.0	45.1	45.6	46.0	A	0.8	30	71	1.05	DAX12-65AC	\$6,468.00
15.0	47	47.5	47.9	A	0.7	30	71	1.06	DAX15-65AC	\$10,864.00

**Radio Frequency System – Phase II****C. High Performance, 6.425-7.125 GHz, Dual Polarization, Super Cross Polarization CPR 137G Input Flange**

Diameter in Feet	Gain-DB Bottom	Gain-DB Mid Band	Gain-DB Top	FCC Category	Beam Width °s	Cross Pol Disc. DB	F/B Ratio DB	VSWR	RFS P/N	PRICE EACH
6	39.2	39.7	40.1	A	1.7	40	69	1.08	UXA6-65AC	\$3,900.00
8	41.8	42.2	42.7	A	1.3	40	71	1.06	UXA8-65AC	\$4,900.00
10	43.5	43.9	44.4	A	1.0	40	74	1.06	UXA10-65AC	\$5,940.00
12	45.1	45.6	46.0	A	0.8	40	76	1.06	UXA12-65AC	\$8,094.00
15	47.0	47.5	47.9	A	0.7	40	77	1.05	UXA15-65AC	\$12,296.00

**D. Ultra High Performance, 6.425-7.125 GHz, Dual Polarization, CPR 137G Input Flange**

Diameter in Feet	Gain-DB Bottom	Gain-DB Mid Band	Gain-DB Top	FCC Category	Beam Width °s	Cross Pol Disc. DB	F/B Ratio DB	VSWR	RFS P/N	PRICE EACH
6	39.2	39.7	40.1	A	1.7	30	69	1.08	UDA6-65AC	\$2,408.00
8	41.8	42.2	42.7	A	1.3	30	71	1.06	UDA8-65AC	\$3,900.00
10	43.5	43.9	44.4	A	1.0	30	73	1.06	UDA10-65AC	\$5,940.00
12	45.1	45.6	46.0	A	0.8	30	75	1.06	UDA12-65AC	\$8,094.00
15	47.0	47.5	47.9	A	0.7	30	76	1.05	UDA15-65AC	\$12,296.00

**E. High Performance, 10.7-11.7 GHz, Single Polarization, CPR 90G Input Flange**

Diameter in Feet	Gain-DB Bottom	Gain-DB Mid Band	Gain-DB Top	FCC Category	Beam Width °s	Cross Pol Disc. DB	F/B Ratio DB	VSWR	RFS P/N	PRICE EACH
4	40.1	40.5	40.9	A	1.6	30	61	1.08	DA4-107AC	\$1,536.00
6	43.7	44.0	44.5	A	1.0	30	70	1.06	DA6-107AC	\$2,820.00
8	46.1	46.4	46.9	A	0.8	30	71	1.06	DA8-107AC	\$3,498.00
10	48.0	48.4	48.6	A	0.7	30	70	1.06	DA10-107AC	\$4,440.00
12	49.4	49.8	50.0	A	0.5	30	70	1.05	DA12-107AC	\$6,020.00

**F. High Performance, 10.7-11.7 GHz, Dual Polarization, CPR 90G Input Flange**

Diameter in Feet	Gain-DB Bottom	Gain-DB Mid Band	Gain-DB Top	FCC Category	Beam Width °s	Cross Pol Disc. DB	F/B Ratio DB	VSWR	RFS P/N	PRICE EACH
4	39.8	40.4	40.8	A	1.5	30	64	1.08	DAX4-107AC	\$1,794.00
6	43.5	43.8	44.3	A	1.0	30	68	1.06	DAX6-107AC	\$2,990.00
8	45.9	46.2	46.7	A	0.8	30	69	1.06	DAX8-107AC	\$3,684.00
10	47.8	48.2	48.4	A	0.7	30	70	1.06	DAX10-107AC	\$4,804.00
12	49.2	49.6	49.9	A	0.5	30	72	1.05	DAX12-107AC	\$6,468.00

**Radio Frequency System – Phase II****G. High Performance, 10.7-11.7 GHz, Dual Polarization, Super High Cross Polarization CPR 90G Input Flange**

Diameter in Feet	Gain-DB Bottom	Gain-DB Mid Band	Gain-DB Top	FCC Category	Beam Width °s	Cross Pol Disc. DB	F/B Ratio DB	RFS P/N	PRICE EACH
4	40.0	40.4	40.3	A	1.5	40	70	UXA4-107AC	\$2,408.00
6	43.5	43.8	44.3	A	1.1	40	73	UXA6-107AC	\$3,900.00
8	45.9	46.2	46.7	A	0.8	40	75	UXA8-107AC	\$4,900.00
10	47.8	48.2	48.4	A	0.7	40	77	UXA10-107AC	\$5,940.00
12	49.2	49.6	49.9	A	0.5	40	78	UXA12-107AC	\$8,094.00

**H. Ultra High Performance, 10.7-11.7 GHz Dual Polarization, CPR90G**

Diameter in Feet	Gain-DB Bottom	Gain-DB Mid Band	Gain-DB Top	FCC Category	Beam Width °s	Cross Pol Disc. DB	F/B Ratio DB	RFS P/N	PRICE EACH
4	40.0	40.4	40.8	A	1.5	40	70	UXA4-107AC	\$2,408.00
6	43.5	43.8	44.3	A	1.1	40	73	UXA6-107AC	\$3,900.00
8	45.9	46.2	46.7	A	0.8	30	75	UDA8-107AC	\$4,900.00
10	47.8	48.2	48.4	A	0.7	30	77	UDA10-107AC	\$5,940.00
12	49.2	49.6	49.9	A	0.5	30	78	UDA12-107AC	\$8,094.00

**I. High Performance, 17.7-19.7 GHz, Singal Polarization, UG595/U Input Flange**

Diameter in Feet	Gain-DB Bottom	Gain-DB Mid Band	Gain-DB Top	FCC Category	Beam Width °s	Cross Pol Disc. DB	F/B Ratio DB	RFS P/N	PRICE EACH
8	49.9	50.3	50.8	A	0.45	30	74	DA8-190AZ	\$3,498.00

**J. High Performance, 17.7-19.7 GHz, Super, Dual Polarization, UG595/U Input Flange**

Diameter in Feet	Gain-DB Bottom	Gain-DB Mid Band	Gain-DB Top	FCC Category	Beam Width °s	Cross Pol Disc. DB	F/B Ratio DB	RFS P/N	PRICE EACH
1	32.7	33.3	33.8	-	3.4	30	55	SBX1-190AZ	\$379.20
2	37.8	38.3	38.7	A	1.9	36	66	UXA2-190BZ	\$1,910.00
4	44.0	44.5	44.9	A	1.0	36	72	UXA4-190BZ	\$2,408.00
6	47.5	48.0	48.4	A	0.7	36	76	UXA6-190AZ	\$3,900.00

**Radio Frequency System – Phase II****Radomes PRICING**

Radome Type	Diameter in Feet	Attenuation 2 GHz	Attenuation 6 GHz	Attenuation 11 GHz	Attenuation 18 GHz	RFS P/N	PRICE EACH
Standard	2.0	0.10 dB	0.30dB	.9dB	2.0db	RANDOME_2	\$184.80
Standard	4.0	0.10 dB	0.30dB	1.0dB	2.0db	RANDOME_4	\$285.60
Standard	6.0	0.10 dB	0.40dB	1.0dB	2.1db	RANDOME_6	\$393.60
Standard	8.0	0.10 dB	0.50dB	1.1dB	--	RANDOME_8	\$621.60
Standard	10.0	0.20dB	0.80dB	1.5dB	--	RANDOME_10	\$912.00

**Transmission Line PRICING**

Transmission line or COAXIAL cable will be available according to the sizes listed below:

SIZE	DESCRIPTION	PRICE per foot
1/2"	Diameter Foam Dielectric Coaxial Cable	\$.93
7/8"	Diameter Foam Dielectric Coaxial Cable	\$2.13
1-1/4"	Diameter Foam Dielectric Coaxial Cable	\$4.14
7/8"	Diameter Air Dielectric Coaxial Cable	\$3.20
1-5/8"	Diameter Foam Dielectric Coaxial Cable	\$5.28
1/4"	Diameter Super Flexible Foam Dielectric Coaxial Cable	\$.61
1/2"	Diameter Super Flexible Foam Dielectric Coaxial Cable	\$1.36

Elliptical and Rigid waveguide will be supplied according to the sizes and/or frequency band listed below:

TYPE	RANGE	PRICE per foot
Elliptical Waveguide for	5.925 – 7.125 GHz E65	\$6.01
Rigid Waveguide for	5.925 – 7.125 GHz	\$N/A
Elliptical Waveguide for	10.70 – 11.70 GHz E105	\$5.42
Rigid Waveguide for	10.7 – 11.70 GHz	\$N/A
Elliptical Waveguide for	17.70 – 19.70 GHz E185	\$3.89
Rigid Waveguide for	17.70 – 19.70 GHz	\$N/A
Elliptical Waveguide for	21.20 – 23.60 GHz E220	\$3.50
Rigid Waveguide for	21.20 – 23.60 GHz	\$N/A

**Radio Frequency System – Phase II**

## Connectors PRICING

## Connectors for Foam

½” Connector	Price Each	7/8” Connector	Price Each	1-¼” Connector	Price Each	1-5/8 Connector	Price Each	¼” Super Flexible Connetor	Price Each	½” Super Flexible Connector	Price Each
“N” Male	\$14.46	“N” Male	\$18.94	“N” Male	\$58.98	“N” Male	\$83.34	“N” Male	\$15.75	“N” Male	\$14.67
“N” Female	\$14.46	“N” Female	\$18.94	“N” Female	\$58.98	“N” Female	\$83.34	“N” Female	\$10.82	“N” Female	\$12.78
UHF Male	\$18.20	UHF Male	\$25.90	UHF Male	N/A	UHF Male	N/A	UHF Male	\$20.41	UHF Male	\$14.63
UHF Female	\$18.20	UHF Female	\$25.90	UHF Female	NA/	UHF Female	NA/	DIN Male	\$17.15	DIN Male	\$14.67
7/16 DIN Male	\$14.46	7/16 DIN Male	\$18.94	7/16 DIN Male	\$58.98	7/16 DIN Male	\$83.34	DIN Female	\$20.48	DIN Female	\$14.67
7/16 DIN Female	\$14.46	7/16 DIN Female	\$18.94	7/16 DIN Female	\$58.98	7/16 DIN Female	\$83.34	DIN Male Right Angle	N/A	DIN Male Right Angle	\$20.79
7/8” EIA	\$41.02	7/8” EIA	\$42.42	7/8” EIA	\$84.70	7/8” EIA	\$121.28				

## 7/8” Connectors for Air Dielectric

TYPE	PRICE EACH
“N” Male 738247	\$43.75
“N” Female 738226	\$41.65
7/8” EIA Flange 738229 (GB) OR 738230 (GB)	\$68.25 (GB) \$ 46.20 (GP)

## Connectors for Waveguide

DESCRIPTION	RFS P/N	PRICE EACH
EWP 63, Tunable, CPR and EW 63, Standard, CPR 137G	C137-065TG Tunable C137-065FG Standard	\$112.00 \$99.75
EWP 90, Tunable, CPR and EW 90, Standard, CPR 90G	C90-105TG Tunable C90-105FG Standard	\$119.00 \$108.50
EWP 180, Tunable, UG595/U and EW 180, Standard, UG595/U	G595-185TG Tunable	\$120.75
EW 220, Fixed Tuned	B220-220FP PBR FLANGE PLAST 2000 SEAL	\$87.50

**Radio Frequency System – Phase II**

## Dehydrators

Flow Rate	Pressure	Dew	Recom.	Type	Voltage	Power	Alarms	RFS P/N	Price
SCFM	PSIG	Point	Volume ft <sup>3</sup>						
0.9	3-8	-33	0-10	D	115 VAC	230	none	SPD-10	\$553.90
0.05	5	-50	0-20	M	115 Vac	184	LP	APD-20	\$1,046.90
0.05	5	-50	0-20	M	115 Vac	184	Full	APD-20W/ALARMS*	\$2,162.38
0.2	5	-50	0.01-60	M	115/230 Vac	350/390	LP	APD-22	\$1,191.90
0.2	5	-50	0.01-60	M	115 Vac	350-550	LP	APD-20	\$1,046.90
0.2	5	-50	0.01-60	M	115 Vac	350-550	LP	APD-20	\$1,046.90
0.3	3-8	-50	2-80	M	115 Vac	390	LP	APD-20	\$1,046.90
0.3	3-8	-50	2-80	M	115 Vac	390	LP	APD-20	\$1,046.90
0.3	3-8	-50	2-80	M	115 Vac	390	Full	APD-20 W/ALARMS*	\$2,162.38
0.3	3-8	-50	2-80	M	115	390	Full	APD-20 W/ALARMS*	\$2,162.38

\*Run Time Alarm Kit is P/N 914976

\*Pressure &amp; Humidity Alarm is P/N 920717-001

**Radio Frequency System – Phase II****Spread Spectrum****A. Welded Grid Antenna, 2300-2500 MHz “Spread Spectrum” Type “N” Female Input connector or 7/8” EIA Flange**

Diameter in Feet	Gain – DB Bottom	Gain – DB Mid Band	Gain – DB Top	Beamwidth Degrees	F/B Ratio DB	VSWR	RFS P/N	PRICE EACH
4.0	26.8	27.0	27.2	7.0	32	1.35	MGAR4-23N	\$522.50
6.0	29.6	30.1	30.4	4.5	38	1.35	MGAR6-23N	\$940.50
8.0	32.0	32.4	32.8	3.4	41	1.35	GKLR8-23N	\$1,441.00
10.0	33.9	34.3	34.6	2.7	45	1.35	GKLR10-12N	\$1,881.00
12.0	36.0	36.4	36.7	2.6	47	1.35	GKAR12-23N	\$2,992.00
15.0	38.1	38.6	39.1	1.9	48	1.35	NO BID	\$

**B. Solid Parabolic Reflector Standard Antenna, 2290-2450 MHz, “Spread Spectrum” Type “N” Female Input Connector or 7/8” EIA Flange.**

Diameter in Feet	Gain – DB Bottom	Gain – DB Mid Band	Gain – DB Top	Beamwidth h Degrees	Cross Pol Disc. DB	F/B Ratio DB	VSWR	RFS P/N	PRICE EACH
4.0	26.7	27.1	27.3	6.9	25	36	1.3	SPF4-23AJ	\$720.00
6.0	30.2	30.6	30.9	4.6	25	39	1.1	SPF6-23AJ	\$852.00
8.0	32.9	33.3	33.3	3.5	30	40	1.1	PAF8-23AE	\$1,430.40
10.0	34.9	35.2	35.3	2.8	30	43	1.1	PAF10-23AE	\$2,112.00
12.0	36.5	36.8	37.2	2.3	30	45	1.1	PAF12-23AE	\$3,686.40

**C. Solid Parabolic Reflector Standard Antenna, 5725-5850 MHz, “Spread Spectrum” CPR 137G Flange**

Diameter in Feet	Gain – DB Bottom	Gain – DB Mid Band	Gain – DB Top	Beamwidth h Degrees	Cross Pol Disc. DB	F/B Ratio DB	VSWR	RFS P/N	PRICE EACH
2.0	27.4	27.9	28.4	6.2	25	34	1.5	SPF2-52AN	\$408.00
3.0	30.9	31.4	31.9	4.2	25	38	1.5	SPF3-52AN	\$669.60
4.0	33.4	33.9	34.4	3.1	28	40	1.5	SPF4-52AN	\$739.20
6.0	37.0	37.4	37.9	2.1	30	44	1.5	SPF6-52AN	\$936.00

**Radio Frequency System – Phase II**

Accessory price discount off manufacturer price list  
Discount off Manufacturer Price List: See Below for rate

**RADIO FREQUENCY SYSTEMS, INC.**

**PURCHASE DISCOUNTS  
FOR  
STATE OF WASHINGTON  
AND OTHER WSCA STATES**

**Phase I**

High Performance Microwave Antennas	60%
Standard Performance Microwave Antennas	52%
Grid Microwave Antennas	45%
Flexwell® Elliptical Waveguide	65%
Flexwell® Elliptical Waveguide Connectors	65%
Flexwell® Elliptical Waveguide Accessories	65%
CELLFLEX® LCF Foam Dielectric Coaxial Cables	65%
CELLFLEX® LCF Coaxial Cable Connectors	65%
CELLFLEX® Installation Accessories	65%
Flexwell® Air Dielectric Coaxial Cables	60%
Pressurization Equipment	42%

Note: All pricing is FOB Destination with full standard surface freight allowed.

Per Section 32.a. of the RFP, Radio Frequency Systems is also offering a contractual project discount of three percent (3%) off the total value for any single purchase order or combination of purchase orders over \$100,000, submitted at one time by a purchasing entity, or multiple entities, conducting a cooperative purchase for delivery.

The above discounts shall be applied to the prices listed in the most current Radio Frequency Systems published price list and are subject to annual review.

Price List Dated 2003 included with all binders.

**Radio Frequency System – Phase II**  
**RADIO FREQUENCY SYSTEMS, INC.**

Volume Discount Program - Phase 1 and Phase 2 all categories

The volume discount will be cumulative and over the term of the contract.

(Initial Term of Three [3] Years)

Additional Discount off Net Contract Unit Price	Cumulative Total Sales from:	Cumulative Total Sales to:
1.0%	\$ 5,000,000	\$ 9,999,999
2.5%	\$ 10,000,000	\$ 14,999,999
3.5%	\$ 15,000,000	\$ 19,999,999
5.0%	\$ 20,000,000	\$ 29,999,999
6.0%	\$ 30,000,000	\$ 39,999,999
7.0%	\$ 40,000,000	\$ 49,999,999
7.5%	\$ 50,000,000	\$ 59,999,999
8.0%	\$ 60,000,000	\$ 69,999,999
8.5%	\$ 70,000,000	\$ 79,999,999
9.0%	\$ 80,000,000	\$ 89,999,999
9.5%	\$ 90,000,000	\$ 99,999,999
10.0%	\$100,000,000	\$ 100,000,000+

**Relm (King) – Phase I**Contractor: [RELM Wireless Corporation \(King\)](#)

Contact: Shari Sharp

Alternate Contact: Roberta Gran

Phone: 321-953-7952

321-953-7703

Fax: 321-676-4403

800-704-3177

Email: [ssharp@relm.com](mailto:ssharp@relm.com)[robgran@relm.com](mailto:robgran@relm.com)Internet address: [www.relm.com](http://www.relm.com)Web catalog address: [www.relm.com](http://www.relm.com)

Federal ID No.: 59-3486297

Supplier No.: W1049

Total Contract worth:

Payment address: RELM Wireless Corporation  
Dept. AT 952187  
Atlanta, GA 31192-2187Order placement 7100 Technology Dr  
address: W Melbourne FL 32904

Customer Service: Roberta Gran

Telephone: 800-821-2900

Fax: 800-704-3177

Ordering procedures: Call 800-821-2900 (Order Entry @ RELM), E-mail [robgran@relm.com](mailto:robgran@relm.com) or Fax  
hard copy purchase order to 800-821-2900 All w/ contract #02702 referenced.

Credit card acceptance: Visa, MasterCard, Discover &amp; American Express

Minimum orders: N/A

Delivery time: 60 Days ARO

Payment terms: 0% 30 Days

Shipping destination: Free on Board (FOB) destination

Freight: Prepaid and included

Palletization: YES

Category

Equipment Line items

Link to Equipment  
Specifications [www.relm.com](http://www.relm.com)

Link to Price Sheets

And Authorized Dealers

Relm pricing  
percentage.docRelm pricing  
2008.pdf

Relm Dealer List.xls

Awarded Phase(s) Phase I

**Sinclair Technologies**Contractor: [Sinclair Technologies](#)Contact: [Arlene Gerfin](#)Alternate Contact: [Cyndi Fischer](#)

Phone: 716 874-3682 ext 336

310 796 1336

Fax: 716 874 4007

310 796 0636

Email: [agerfin@sinctech.com](mailto:agerfin@sinctech.com)[cfischer@sinctech.com](mailto:cfischer@sinctech.com)Internet address: [www.sinctech.com](http://www.sinctech.com)

Web catalog address:

Federal ID No.: 16-0845791

Supplier No.: 30589-1

Total Contract worth: \$500,000,000.00

Payment address: Sinclair Technologies  
55 Oriskany Dr  
Tonawanda, NY 14150Order placement address: Sinclair Technologies  
55 Oriskany Dr  
Tonawanda, NY 14150

Customer Service: Arlene Gerfin

Telephone: 716-874-3682 x243

Fax: 716-874-8736

Ordering procedures:

Credit card acceptance: (NONE SPECIFIED, BUT ANSWERED YES THEY ACCEPT THEM)

Minimum orders:

Delivery time: 30 days After Receipt of Order (ARO)

Payment terms: 1% 30 days

Shipping destination: Freight on Board (FOB) destination

Freight: Prepaid and included

Palletization: N/A

Category

Equipment Line items

Link to bid Specifications

Link to Price Sheets

Awarded Phase(s) Phase I

**Sinclair Technologies – Phase I**

Req. Item	Comm. Code	Description	Qty	Unit	Percentage off Mfg List Price
1.		Support Services	Hourly	EA	\$
2.		Installation Services	Hourly	EA	\$
3.		Repair Services	Hourly	EA	\$
4.		Accessories		EA	
5.		List other Equipment			
6.		Cavity Ferrite Tx Combiners Brand/Model: CT & TJ Series (Catalog pg. 52-53)		EA	35%
7.		Excaliber Mobile Antennas Mfg.: Sinclair Technologies Inc. Brand/Model: Excal Series (Catalog pg. 43-45)		EA	35%
8.		Cavity Filters Mfg.: Sinclair Technologies Inc. Brand/Model: FP/FR/FQ Series (Catalog pg. 100-104)		EA	35%
9.		Isolators Mfg.: Sinclair Technologies Inc. Brand/Model: I Series (Catalog pg. 68-69)			35%
10.		Mobile Duplexers Mfg.: Sinclair Technologies Inc. Brand/Model: MR Series (Catalog pg. 96-99)			35%
11.		Band Pass Duplexer Mfg.: Sinclair Technologies Inc. Brand/Model: P Series (Catalog pg. 86)		EA	<u>35%</u>
12.		IM Suppression Panels Mfg.: Sinclair Technologies Inc. Brand/Model: PC Series (Catalog pg. 67)		EA	<u>35%</u>
13.		Preselectors Mfg.: Sinclair Technologies Inc. Brand/Model: FP & PH Series (Catalog pg. 82-83)		EA	<u>35%</u>

**Sinclair Technologies – Phase I**

Req. Item	Comm. Code	Description	Qty	Unit	Percentage off Mfg List Price
14.		Q-Circuit Base Station Duplexers Mfg.: Sinclair Technologies Inc. Brand/Model: Q-201G / Q-202G Series (Catalog pg. 89-90)		EA	<u>35%</u>
15.		Res-Lok 'Q' Series Duplexers Mfg.: Sinclair Technologies Inc. Brand/Model: Q Series (Catalog pg. 91-95)		EA	<u>35%</u>
16.		Receiver Multicouplers Mfg.: Sinclair Technologies Inc. Brand/Model: RM Series (Catalog pg. 73-76)		EA	<u>35%</u>
17.		Exposed Dipole Array Antennas Mfg.: Sinclair Technologies Inc. Brand/Model: SRL- 110 / 210 / 222 / 224 / 235 / 310 / 335 Series (Catalog pg. 7, 9-12, 17-19)		EA	<u>35%</u>
18.		VHF Corner Reflector Mfg.: Sinclair Technologies Inc. Brand/Model: SRL-227 (Catalog pg. 40)		EA	<u>35%</u>
19.		Omnidirectional Antennas Mfg.: Sinclair Technologies Inc. Brand/Model: SRL-238 (Catalog pg. 8)		EA	<u>35%</u>
20.		Yagi Antennas Mfg.: Sinclair Technologies Inc. Brand/Model: SRL-206 / SRL-212 / SRL-307 / SRL-406 (Catalog pg. 36, 37, 39)		EA	<u>35%</u>
21.		Cellular/Trunking Exposed Dipole Array Antennas Mfg.: Sinclair Technologies Inc. Brand/Model: SRL-410 Series (Catalog pg. 21)		EA	<u>35%</u>
22.		Cellular/Trunking Omnidirectional Antennas Mfg.: Sinclair Technologies Inc. Brand/Model: SRL-420 / SRL-480 Series (Catalog pg. 30)		EA	<u>35%</u>

**Sinclair Technologies – Phase I**

Req. Item	Comm. Code	Description	Qty	Unit	Percentage off Mfg List Price
23.		Data Antennas Mfg.: Sinclair Technologies Inc. Brand/Model: SRL-441 Series (Catalog pg. 46-47)		EA	<u>35%</u>
24.		Transmitter Combiners Mfg.: Sinclair Technologies Inc. Brand/Model: TC Series (Catalog pg. 58-59)		EA	<u>35%</u>
25.		Fiberglass Collinear Antennas Mfg.: Sinclair Technologies Inc. Brand/Model: SRL-229 / SRL-320 (Catalog pg. 13, 16)		EA	<u>35%</u>
26.		Ground Plane Antennas Mfg.: Sinclair Technologies Inc. Brand/Model: SRL-101 / SRL-301 (Catalog pg. 5, 15)		EA	<u>35%</u>
27.		Harmonic Filters Mfg.: Sinclair Technologies Inc. Brand/Model: AF Series (Catalog pg. 72)		EA	<u>35%</u>
28.		Power Monitor/Alarm Systems Mfg.: Sinclair Technologies Inc. Brand/Model: AMV-6A (Catalog pg. 84)		EA	<u>35%</u>
29.		Clamps and Mounting Hardware Mfg.: Sinclair Technologies Inc. Brand/Model: Clamps (Catalog pg. 118-125)		EA	<u>35%</u>

**SmartLink Radio Networks**Contractor: [SmartLink Radio Networks](#)

Page number

Contact: Steve Scott

Alternate Contact:

Phone: 310-791-8798

Fax: 310-375-9754

Email: [sscott@calamp.com](mailto:sscott@calamp.com)Internet address: [www.smartlink.net](http://www.smartlink.net)[www.calamp.com](http://www.calamp.com)

Web catalog address:

Federal ID No.: 06-1700610

Supplier No.: W3499

Total Contract worth: \$500,000,000.00

Payment address: SmartLink Radio  
Networks, Inc.  
1269 So. Broad Street  
Wallingford, CT 06492Order placement address: SmartLink Radio  
Networks, Inc.  
1269 So. Broad Street  
Wallingford, CT 06492

Customer Service: Glenn Schultz

Telephone: 203-741-5603

Fax: 203-269-2378

Ordering procedures:

Credit card acceptance: None

Minimum orders:

Delivery time: 15 days After Receipt of Order (ARO)

Payment terms: 0% 30 days

Shipping destination: Freight on Board (FOB) destination

Freight: Prepaid and included

Palletization: N/A

Category

Equipment Line items Category 4, IP Base Gateway Solution

Link to bid Specifications

Link to Price Sheets

Awarded Phase(s) Phase I &amp; II

**SmartLink Radio Networks – Phase II**

## Specification

## Category 4 IP Base Solution SmartLink

The purpose of this section is to purchase an IT Based solution that has interface adapters for a variety of communications devices and mediums (VHF/UHF radio, telephone or Satcom, HF radio, local operator, etc.). The switch shall consist of a control unit containing all audio and switching circuitry, medium interface connectors, controls and indicators. Accessory adapters for a variety of external communications devices and mediums shall be supported. **SmartLink flexibility and low cost aspects of this solution make it ideal for metropolitan scale internet protocol based solutions. See full list of specifications at: <http://www.ga.wa.gov/pca/bids/02702-Phase2-Category4.doc>**

## Price Sheet

## 1. Required Equipment Quantities

Table 0-1: Summary of Basic Equipment Quantities

	Typical Small System Quantities	Typical Medium System Quantities
Interoperability Operation Center	1	1
System Management Console	1	1
Remote Management Console	See Footnote 1	See Footnote 1
PSTN Interface	6	0
Audio Interface Card	90	186
Audio Interface Chassis	18	34
Optional Dispatch Consoles	4	0
Remote Dispatch Facility (if required)		

1. A dedicated remote console is not required as any PC equipped with the appropriate software may provide remote access to for management or diagnostic purposes the ANP through a direct, dial-up or LAN connection.

## 2. PRICING

Bidders shall provide pricing information on the following price forms:

## 2.1. Basic System Pricing (backbone)

**SmartLink Radio Networks – Phase II**

Item	Qty	Equipment Description	Price Each	Price Extended
1	Small	Interoperability Operations Center and Audio Interface Interoperability Solution Pricing		\$201,787
	Medium			\$547,165
2a	Small	System Management Equipment and Software		\$491,910
B	Medium			\$1,130,544
3a	Small	Installation		\$211,649
B	Medium			\$266,929
4	Lot	Training Including:		
	Small	Operator/User		\$1,250
	Medium			\$1,250
	Small	Technician		\$4,000
	Medium			\$4,000
	Small	Administrator		\$2,000
	Medium			\$2,000
	Small	Console		\$79,980
	Medium			\$19,995
5	Small	Documentation		\$14,000
	Medium			\$14,000
6	Small	Project Management		\$40,000
	Medium			\$40,000
7	Small	Project Engineering		\$16,000
	Medium			\$16,000
8	Small	(Optional) Software Services	Software maintenance will be assessed at 15 to 20% of the SmartLink site and channel license costs billed on an annual basic	
	Medium			
9	Small	(Optional) Maintenance (Basic System)		TBD
	Medium			TBD
10	Small	(Optional) Spare Parts (Basic System)	See section 4 of the bid submittals	
	Medium			
11	Small	(Optional) Test Equipment	See section 4 of the bid	

**SmartLink Radio Networks – Phase II**

Item	Qty	Equipment Description	Price Each	Price Extended
	Medium		submittals	

**Optional System Equipment Pricing**

Item	Qty	Equipment Description	Price Each	Price Extended
1	1	Optional Dispatch Equipment		\$19,995

Grand Total for Small System	<u>\$1,062,578</u>
Grand Total for Medium System	<u>\$2,041,883</u>

Contractor: [Tait North America, Inc.](#)

Contact: Paul Middleton,

Alternate Contact: Patricia Nguyen

Phone: 281-687-4050

281-600-8281

Fax: 281-829-3320

(281) 829-3320.

Email: Paul.Middleton@taitmobile.com

[patricia.nguyen@taitmobile.com](mailto:patricia.nguyen@taitmobile.com)Internet address: <http://us.taitworld.com> [wsca@taitmobile.com](mailto:wsca@taitmobile.com)Web catalog address: [www.taitworld.com](http://www.taitworld.com)Catalog <http://www.ga.wa.gov/pca/contract/02702-Tait-Radio-12052005.pdf>

Federal ID No.: 74-2209324

Supplier No.: W6742

Total Contract worth:

Payment and Legal address: Controller: Tanya Pal  
15740 Park Row, #450  
Houston TX 77084Order placement Operations Mgr  
address: 15740 Park Row, #450  
Houston TX 77084Customer Service: Logistic & order processing Dept [wsca@taitmobile.com](mailto:wsca@taitmobile.com)

Telephone: 281-829-3300

Fax: 281-829-3320

Ordering procedures:

Credit card acceptance: Visa, MasterCard

Minimum orders: None

Delivery time: 30 days After Receipt of Order (ARO)

Payment terms: % days

Shipping destination: Free on Board (FOB) destination

Freight: Prepaid and included

Palletization:

Category

Equipment Line items

Link to bid Specifications

Link to Price Sheets

Awarded Phase(s) Phase I

Req. Item	Comm. Code	Description	Qty	Unit	Percentage off Mfg List Price
1.		Base Station TB800 II Series	1-4 5-10 11+	EA EA EA	25% 25% 25%
1a		Base Station TB8000	1-4 5-10 11+	EA EA EA	15% 17% 22%
2.		Repeater T800 II	1-4 5-10 11+	EA EA EA	25% 25% 25%
2a		Repeater TB8000	1-4 5-10 11+	EA EA EA	10% 12% 15%
3.		Portable Radio	1-49 50+	EA EA	25% 25%
4.		Mobile Radio	1-20 21-100 101+	EA EA EA	25% 25% 25%
5.		TB8100 Products	1	EA	25%
6.		Support Services (excluding travel & accommodation) Training costsper student per hour During office hours Outside office hours	 1 1 1	 HR HR HR	 \$85.00 \$85.00 \$150.00
7.		Repair Services During office hours Outside office hours	 1 1	 HR HR	 \$85.00 \$150.00
8.		Accessories All accessories Items for radio in Tait North America Inc WSCA price book	1	EA	20%
9.		List other Equipment All other items in the Tait North America Inc WSCA price book, except equipment for items above	1	EA	20%

**Valmont****CONTRACTOR INFORMATION**

Contractor:	<b>Valmont</b>		
Page number	<a href="http://www.ga.wa.gov/pca/bids/02702-Phase2-Category6.doc">http://www.ga.wa.gov/pca/bids/02702-Phase2-Category6.doc</a>		
Contact:	Dennis Beal	Alternate Contact:	Sean Gallagher
Phone:	503-589-6671		503-589-6616
Fax:	503-589-6636		503-363-4613
Email:	<a href="mailto:Dennis.Beal@Valmont.com">Dennis.Beal@Valmont.com</a>		<a href="mailto:seang@valmont.com">seang@valmont.com</a>
Alternate Contact:	Ron Beyer		
Phone:	503-589-6673		
Fax:	503-363-4613		
Email:	<a href="mailto:ronb@valmont.com">ronb@valmont.com</a>		
Internet address:	<a href="http://www.valmont.com">http://www.valmont.com</a>		
Web catalog address:	<a href="http://www.valmont.com">http://www.valmont.com</a>		
Tower Details	<a href="http://www.ga.wa.gov/pca/contract/02702-Valmont-HeavyMicrowave-details-052005.xls">http://www.ga.wa.gov/pca/contract/02702-Valmont-HeavyMicrowave-details-052005.xls</a>		
 Bid Documents and Specifications	 <a href="http://www.ga.wa.gov/pca/contract/02702-Valmont-MicrowaveHeavyTowers-052005.doc">http://www.ga.wa.gov/pca/contract/02702-Valmont-MicrowaveHeavyTowers-052005.doc</a>		
 Federal ID No.:	 35-1990084		
Supplier No.:	W365		
Total Contract worth:	\$500,000,000.00		
Payment address:	Valmont Accounts Payable P.O. Box 128 Plymouth, IN 46563	Order placement address:	Valmont Industries 3575 25 <sup>th</sup> Street SE Salem, OR 97302
Customer Service:	Kathy Kalugin		
Telephone:	503-589-6658		
Fax:	503-363-4612		
Ordering procedures:	See the next pages		
Credit card acceptance:	Visa and Mastercard		
Minimum orders:	None		
Delivery time:	45 days After Receipt of Order (ARO)		
Payment terms:	0% 30 days		
Shipping destination:	Freight on Board (FOB) destination		
Freight:	Prepaid and included		
Palletization:	N/A		
Category	Category 6 Communication Towers		
Equipment Line items			
Link to bid Specifications	<a href="http://www.ga.wa.gov/pca/bids/02702-Phase2-Category6.doc">http://www.ga.wa.gov/pca/bids/02702-Phase2-Category6.doc</a>		
Link to Price Sheets	<a href="#">HEAVY MICROWAVE 3-LEGGED TRIANGULAR HOLLOW LEG SELF SUPPORT TOWERS</a> Page 225 <a href="#">HEAVY MICROWAVE 4 LEGGED HOLLOW ROUND SELF SUPPORT TOWERS</a> Page 228		
Engineering Hourly Rate	\$ 95.00 per hour		
Frabrication Hourly	\$ 75.00 per hour		
Installation	\$ 85.00 per hour		
Materials at cost + 15%			

**Valmont**

Awarded Phase(s) Phase I &amp; II

Category 6 Communication Towers

**SPECIAL TERMS AND CONDITIONS****1. MATERIALS AND WORKMANSHIP**

The Contractor shall be required to furnish all materials, equipment and/or services necessary to perform contractual requirements. Materials and workmanship in the construction of equipment for this contract shall conform to all codes, regulations and requirements for such equipment, specifications contained herein, and the normal uses for which intended. Materials shall be manufactured in accordance with the best commercial practices and standards for this type of equipment. Materials used in the production of any tower must be new.

**2. WARRANTY(IES)**

All materials provided shall be guaranteed by the contractor against mechanical, electrical and workmanship defects. In the event defects become evident within the warranty period, the contractor shall furnish replacement parts and materials at no additional cost to the state. The warranty period shall commence with the date of the communications tower's acceptance and remain in effect for one (1) calendar year, except for expendable items.




The contractor shall provide, within the warranty period and at the bid price, the necessary parts, labor and transportation to maintain the equipment in sufficient state of repair to continue system performance in compliance with the specification contained herein. The contractor shall provide qualified personnel, replacement parts and material to service the equipment at the installed site location within eight (8) hours after the notification of equipment failure. Repairs must be complete within 48 hours.

This warranty period maintenance shall be on a working hour basis as follows: 24 hours per day, 7 days per week.





REV G SPECIFICATIONS  
VALMONT

MICROWAVE TOWERS CAMERA POLES MONOPOLES OPTIONAL LIGHTING	 Valmont 2007 Prices.doc	
REV G CATEGORIES	 G:\Purchasing & Contracts\Contracts\	
MONOPOLES	 Valmont Monopoles.xls	

## CONTRACTOR INFORMATION

Contractor: [Vertex Standard USA](#)

Contact:	Jim Driscoll, Sr. Director, Gov't Sales P.O. Box 173 Hopkinton, MA 01748 Phone: 508-435-3905 Fax: 508-435-0525 Email: <a href="mailto:j.driscoll@vxstdusa.com">j.driscoll@vxstdusa.com</a>	Alternate Contact:	Nori Romero, Sales Office Supervisor 1900 Walker Street Cypress, CA 90630 (800) 283-7839 x 2273 (800) 477-9237 <a href="mailto:n.romero@vxstdusa.com">n.romero@vxstdusa.com</a>
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Internet address: <http://www.vxstd.com>

Product catalog address: <http://www.ga.wa.gov/pca/contract/02702-Vertex-Radio-092804.pdf>

Federal ID No.: 95-2815202

Supplier No.: W1063

Total Contract worth: \$500,000,000.00

Payment address:	Vertex Standard PO Box 31001-1624 Pasadena, CA 91110-1624	Order placement address:	See dealer list or Vertex Standard 10900 Walker Street Cypress, CA 90630
------------------	---	--------------------------	--

Customer Service: Nori Romero

Telephone: 800-283-7839

Fax: 800-477-9237

Ordering procedures: Contact Customer Service

Credit card acceptance: Visa, MasterCard, American Express

Minimum orders: None

Delivery time: 30 days After Receipt of Order (ARO)

Payment terms: Net 30 Days

Shipping destination: Freight on Board (FOB) destination

Freight: Prepaid and included

Palletization: N/A

Category Category 1, Radio Equipment

Equipment Line items

[Link to bid Specifications](#)

Awarded Phase(s) Phase I

Vertex Standard  
Price List.xls[Link to Price Sheets](#)

Authorized dealer list:

SND Communications, Inc.  
 2200 Division Street Suite C  
 Bellingham, WA 98226  
 Grant Cooper  
 Tel - 360-671-1970  
 FEIN 911530285  
 sndcom@msn.com

Req. Item	Comm. Code	Description	Qty	Unit	Percentage off Mfg List Price
1.		Base Station	1-4 5-10 11+	EA EA EA	28% 28% 28%
2.		Repeater	1-4 5-10 11+	EA EA EA	28% 28% 28%
3.		Portable Radio	1-49 50+	EA EA	28% 28%

Req. Item	Comm. Code	Description	Qty	Unit	Percentage off Mfg List Price
4.		Mobile Radio	1-20 21- 100 101+	EA EA EA	28% 28% 28%
5.		Desktop	1-20 21- 100 101+	EA EA EA	28% 28% 28%
6.		Support Services	1	HR	\$75.00
7.		Installation Services	1	HR	\$75.00
8.		Repair Services	1	HR	\$75.00
9.		Accessories		EA	28%
10.		List other Equipment All products on our enclosed retail price list		EA	28%
11.		List other Equipment		EA	
12.		List other Equipment		EA	



**Contractor:** **GE MDS, LLC**

**Contact:** Customer Support Dept. or see Regional Sales Contact below

**Phone:** (800) 474-0964

**Fax:** (585) 242-9620

**Email:** [Gemds.customersupport@ge.com](mailto:Gemds.customersupport@ge.com)

**Troubleshooting:** Sandi Kern, Customer Support Leader (585) 242-8430; [sandra.kern@ge.com](mailto:sandra.kern@ge.com)

**Internet address:** [www.gemds.com](http://www.gemds.com)

**Web catalog address:** N/A

**Federal ID No.:** 20-8016239

**Supplier No.:** W5915

**Contract worth:** \$ (100,000 estimated sales per state)

**Payment address:** P.O. Box 402789, Atlanta, GA 30384-2789

**Order placement address:** 175 Science Parkway, Rochester, New York 14620

**Ordering procedures:** Please send purchase orders via email or fax to contact info shown above.

**Credit card acceptance:** We accept MasterCard or VISA.

**Minimum orders:** N/A

**Delivery time:** Varies by product. Please contact Customer Support for further information.

**Payment terms:** Net 30 Days















**Shipping destination:** Free on Board (FOB) destination

**Freight:** Prepaid and included

**Palletization:** N/A

**Special notes:** Must reference contract on. 02702 on all purchase orders that are based on pricing included in this contract.

**Detailed Information**

<b>Attached Information</b>		
<u>Special terms, conditions</u> (contract terms, conditions, restrictions, etc.)	<u>Price Sheets</u> (Items available and prices.)	To submit a Contractor Performance Evaluation please fill out the attached document:
		 Contractor Performance Evaluati
25% Off List Price	 2007 REV A Contract Standard 25% Off.xls	
Volume Discount 500K plus 30% off List Price	 GE MDS 2007 \$500K+ Discount Prik	
Special Marketing Information 900 MHz	 WSCA multistate_marketing	
Specifications	 MDS_iNET_900_Mobil e_Data_Bid_Spec.doc  MDSentraNET_900_S ample_Specification.c	 MDSentraNET_900_S ample_Specification.c
Specifications - continued	 MDSMercuryBidSpeci fication_v5.doc  MDSTransIt_900_MH z_Sample_Spec.doc	 Licensed_Point to Multipoint.doc  900_MHz_Unlicensed _Low_Density_Sprea
Specifications - continued	 Point To Point_HotStandby_Ol  900_MHz_Point To Point_NonStandby_O	

Regional Sales Contact List  
Click on right to locate your local  
representative



GE MDS Regional  
Sales Contact List.xls

See link for sales territory and contact list by location



Sales Regions for US  
and Canada

PERFORMANCE REPORT FOR  
**CONTRACTOR PRODUCT/SERVICE**

Complete this form to report problems with suppliers or to report unsatisfactory product or services. You are also encouraged to report superior performance. Agency personnel should contact suppliers in an effort to resolve problems themselves prior to completion and submission of this report.

Contract number and title: [WSCA Public Safety Communication Contract](#)

OFFICE OF STATE PROCUREMENT  
PERFORMANCE REPORT

To OSP Customers:

Please take a moment to let us know how our services have measured up to your expectations on this contract. Please copy this form locally as needed and forward to the Office of State Procurement Purchasing Manager. For any comments marked unacceptable, please explain in remarks block.

Procurement services provided:	Excellent	Good	Acceptable	Unacceptable
➤ Timeliness of contract actions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
➤ Professionalism and courtesy of staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
➤ Services provided met customer needs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
➤ Knowledge of procurement rules and regulations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
➤ Responsiveness/problem resolution	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
➤ Timely and effective communications	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Agency: \_\_\_\_\_ Prepared by: \_\_\_\_\_

Current Contract Information

Contract No. 02702

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Contract No.: 14600

Title:

Contract Title: Electronic Monitoring

Date:

Phone:

Send to:  
Purchasing Agent  
Office of State Procurement  
PO Box 41017  
Olympia, Washington 98504-1017

## PRODUCT/SERVICE PERFORMANCE REPORT

Complete this form to report problems with suppliers or to report unsatisfactory product or services. You are also encouraged to report superior performance. Agency personnel should contact suppliers in an effort to resolve problems themselves prior to completion and submission of this report.



Contract Report  
Cards.doc

Contract number and title: Public Safety Communication Equipment, WSCA #02702

### Vendor and Contract Report Cards

#### Instructions:

- Use Part 1 to tell us about how well the contractor is performing.
- Use Part 2 to tell us how well the contract works for you.
- Submit completed Report Card to: [pcamail@ga.wa.gov](mailto:pcamail@ga.wa.gov)
- To check boxes – double click

**Need Help?** Click here [pcamail@ga.wa.gov](mailto:pcamail@ga.wa.gov) to send us an email with your question and someone will get back to you within one business day.

#### Tell us about you:

Agency /Division	Agency Contact Name	Email

#### Tell us about the contract:

Contractor Name	Contract Number	Performance Period
		From: To:

#### I use this contract:

<input type="checkbox"/> Daily	<input type="checkbox"/> Weekly	<input type="checkbox"/> Monthly	<input type="checkbox"/> Quarterly	<input type="checkbox"/> Annually
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## Part 1 Vendor Performance Report Card

1. Would you like the current contract extended with the current vendor? (if applicable)

☐ Yes

☐ No

2. On time delivery and order completion

☐ Outstanding (5)

☐ Very Good (4)

☐ Satisfactory (3)

☐ Poor (2)

☐ Unsatisfactory (1)

3. Timeliness of invoices

☐ Outstanding (5)

☐ Very Good (4)

☐ Satisfactory (3)

☐ Poor (2)

☐ Unsatisfactory (1)

4. Customer service courtesy and quality

☐ Outstanding (5)

☐ Very Good (4)

☐ Satisfactory (3)

☐ Poor (2)

☐ Unsatisfactory (1)

5. Accuracy of invoices

☐ Outstanding (5)

☐ Very Good (4)

☐ Satisfactory (3)

☐ Poor (2)

☐ Unsatisfactory (1)

6. Problem solving

☐ Outstanding (5)

☐ Very Good (4)

☐ Satisfactory (3)

☐ Poor (2)

☐ Unsatisfactory (1)

7. Overall vendor performance

☐ Outstanding (5)

☐ Very Good (4)

☐ Satisfactory (3)

☐ Poor (2)

☐ Unsatisfactory (1)

8. Tell us about the times that the vendor has given you outstanding or unsatisfactory service:

## Part 2 Contract Quality Report Card

1. Items on contract meet my needs (functionality and performance)

☐ Outstanding (5)

☐ Very Good (4)

☐ Satisfactory (3)

☐ Poor (2)

☐ Unsatisfactory (1)

2. Contract pricing meets my expectations (cost effective and a good value)

☐ Outstanding (5)    ☐ Very Good (4)    ☐ Satisfactory (3)    ☐ Poor (2)    ☐ Unsatisfactory (1)

3. Contract requirements meets my needs (special terms and conditions)

☐ Outstanding (5)    ☐ Very Good (4)    ☐ Satisfactory (3)    ☐ Poor (2)    ☐ Unsatisfactory (1)

4. Length of contract term meets my needs (appropriate term for the market)

☐ Outstanding (5)    ☐ Very Good (4)    ☐ Satisfactory (3)    ☐ Poor (2)    ☐ Unsatisfactory (1)

5. Scope of contract meets my needs (number of items, features and options)

☐ Outstanding (5)    ☐ Very Good (4)    ☐ Satisfactory (3)    ☐ Poor (2)    ☐ Unsatisfactory (1)

6. Do you have any suggested changes to the contract?

☐ Add the following items to the contract (list):

☐ Remove the following items from the contract (list):

☐ Add the following features, services or options (list):

☐ Remove the following features, services or options (list):

☐ Change the following specification (list item and specification):

☐ Other suggested changes (list):

To: [Keith Armstrong](#)

Contract Consultant

OFFICE OF STATE PROCUREMENT

PO BOX 41017

OLYMPIA WA 98504-1017